

EPA Reg. Jacket 83100-27 vol 3



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration

OPP Identifier Number

Amendment

Other

**Application for Pesticide - Section I**

1. Company/Product Number 83100-27	2. EPA Product Manager Richard Gebken	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Rotam Agrochemical Co. Ltd. /Rotam Methomyl 29LV Insecticide	PM# 10	
5. Name and Address of Applicant (Include Zip Code)  Rotam Agrochemical Co. Ltd. c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707 <input type="checkbox"/> Check if this is a new address	6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to:  <b>NOT REVIEWED</b>  In Accordance with PR Notice 8-2 Based on Draft Labeling Dated 2/19/2015	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter February 19 <sup>th</sup> , 2015
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)**Section - III****1. Material This Product Will Be Packaged In:**

Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" No. per Unit Packaging wgt. container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" No. per Package wgt. container	2. Type of Container <input checked="" type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) HDPE lined bags
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\* **Certification must be submitted**

3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 1 gallon, 2.5 gallons	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other ___ adhesive backed label		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Cheryl Wagner	Title Agent for Rotam Limited	Telephone No. (Include Area Code) (302) 635-7289
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received  (Stamped)
2. Signature  Cheryl R. Wagner	3. Title Agent for Rotam Agrochemical Co. Ltd.	
4. Typed Name Cheryl Wagner	5. Date September 14 <sup>th</sup> , 2015	

September 14<sup>th</sup>, 2015



**WRA**

Wagner Regulatory Associates, Inc.  
P.O. Box 640  
7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

Document Processing Desk  
ATTN: Richard Gebken, PM Team 10  
Registration Division (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, Virginia 22202-4501

*PM 11*

Dear Mr. Gebken,

**Subject: Final Print Labels - Distributor only**

Wagner Regulatory Associates, Inc., as agent for Rotam Agrochemical Co. Ltd. respectfully submits the enclosed final print labels for the following products -

- 83100-27 - Rotam Methomyl 29LV Insecticide - as requested in the EPA letter dated February 19<sup>th</sup>, 2015
- 83100-28 - Rotam Methomyl 90SP Insecticide - as requested in the EPA letter dated February 19<sup>th</sup>, 2015

These products are only being marketed under the supplemental distributor labels and are not being packaged and/or distributed under the Rotam Agrochemical Co. Ltd. EPA registration numbers.

If you have any questions about this submission please contact the undersigned at 302-635-7289 or [cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com).

Regards,

Cheryl Wagner  
Agent for Rotam Agrochemical Co. Ltd.

Enclosures

March 10, 2014

U.S. Environmental Protection Agency  
Office of Pesticide Programs (7505P)  
One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202

Re: Designation of Agent

Dear Sir or Madam:

This letter serves as notification that **ROTAM AGROCHEMICAL COMPANY LIMITED** (Firm Number: 83100) has appointed Wagner Regulatory Associates, Inc. (WRA, Inc.) to serve as its Agent regarding all pesticide registration matters the company may have with the U.S. Environmental Protection Agency (EPA).

**ROTAM AGROCHEMICAL COMPANY LIMITED** hereby authorizes EPA to contact any of the following individuals within WRA, Inc. on behalf of the company:

James M. Wagner  
Managing Director  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
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Fax: (302) 635-7295  
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Cheryl R. Wagner  
President  
Wagner Regulatory Associates, Inc.  
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Authorization to contact these staff members within WRA, Inc remains in effect until such time that **ROTAM AGROCHEMICAL COMPANY LIMITED** provides notification in writing of any changes.

Respectfully submitted,



Yifan Wu  
Senior Vice President  
Technical Development Department  
Tel: 86-512-5790 3076  
Fax: 86-512-5771 8692  
Email: yifanwu@rotam.com

cc: WRA, Inc.

## RESTRICTED USE PESTICIDE

### DUE TO HIGH ACUTE TOXICITY TO HUMANS

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

# NUDRIN<sup>TM</sup> LV

GROUP 1A INSECTICIDE

## INSECTICIDE

#### Water Soluble Liquid

#### Active Ingredient

Methomyl (S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)

#### Other Ingredients

#### TOTAL

Contains Methanol

Contains 2.4 lbs. active ingredient per gallon

#### By Weight

29%

71%

100%

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**  
**PELIGRO**



**POISON**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

#### FIRST AID

##### (N-Methyl Carbamate Insecticide)

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**ATROPINE IS AN ANTIDOTE - SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.**

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

**POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to NUDRIN LV INSECTICIDE alone. However, for exposure to combinations of NUDRIN LV INSECTICIDE and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.

Manufactured for:

ROTAM NORTH AMERICA, INC.

4900 Koger Blvd., Suite #140, Greensboro, NC 27407, 1-866-927-6826

**Net Contents: 55 GALLONS (208.19 liters)**

**Non-refillable Plastic Container**

See inside booklet for additional Precautionary Statements and Directions for Use.

EPA Reg. No.: 83100-27-83979

EPA Est. No.: 5905-GA-01



NUDLV-01-A021915-REV072215-55G

NOT REVIEWED

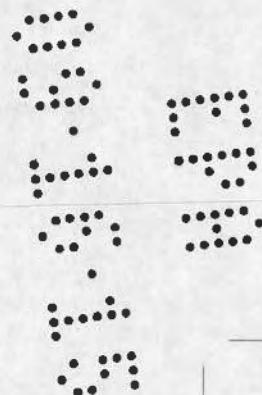
In Accordance with PR Notice 8-2

Based on Draft Labeling Dated

2/19/15

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**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS**  
**AND DOMESTIC ANIMALS**

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER**  **POISON**  
**PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Contains Methanol. Methanol may cause blindness. Corrosive. Causes irreversible eye damage. May be fatal if swallowed or if inhaled. Harmful if absorbed through skin. Do not get in eyes or on clothing. Do not breathe spray mist. Avoid contact with skin.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as natural rubber or other materials in EPA category C.
- Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROL STATEMENTS**

**Human flaggers must be in enclosed cabs.**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

**Pilots must not assist in the mixing and loading operations.**



## USER SAFETY RECOMMENDATIONS

### USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean highwater mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

## PHYSICAL AND CHEMICAL HAZARDS

**Combustible.** Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation. The product shows potential explosive properties when heated to elevated temperatures.

## DIRECTIONS FOR USE

### Restricted Use Pesticide

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- Shoes plus socks.
- Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Do not formulate this product into other end-use products.

NUDRIN LV INSECTICIDE is a water soluble liquid that is applied by foliar application to control many important insect pests. NUDRIN LV INSECTICIDE is mixed with water for application.

Chemigation: Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Pilots must not assist in the mixing and loading operations.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Hand-held equipment is prohibited for applications to crops. This product must be applied to crops only with mechanical ground, overhead sprinkler chemigation or aerial application equipment.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

### RESISTANCE MANAGEMENT

For resistance management, NUDRIN LV INSECTICIDE is a group 1A insecticide. Repeated and exclusive use of NUDRIN LV INSECTICIDE or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.irac-online.org>.

### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of NUDRIN LV INSECTICIDE based on locally determined economic thresholds. More than one treatment of NUDRIN LV INSECTICIDE may be required to control a population of pests.

### BENEFICIAL ARTHROPODS

NUDRIN LV INSECTICIDE at rates of 2/5 to 3/4 pint per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying NUDRIN LV INSECTICIDE. Fill spray tank 1/4 to 1/2 full of water. Add NUDRIN LV INSECTICIDE directly to spray tank. Mix thoroughly. Use mechanical or hydraulic means; do not use air agitation. Spray mix should not be stored overnight in spray tank.

**Compatibility** — Since formulations may be changed and new ones introduced, in this situation users can premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.) before applying the product. Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use NUDRIN LV INSECTICIDE with Bordeaux mixture (copper sulfate and hydrated lime), Du Ter triphenyltin hydroxide, lime sulfur, Rayplex iron nor in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.



**Tank Mix Sequence** – Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

1. Water soluble bags.
2. Water dispersible granules.
3. Wettable powders.
4. Water based suspension concentrates.
5. NUDRIN LV INSECTICIDE and other water soluble concentrates.
6. Oil based suspension concentrates.
7. Emulsifiable concentrates.
8. Adjuvants, surfactants, oils, soluble fertilizers, and drift retardants. Follow local practice and manufacturer's recommendation.

## APPLICATION

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of NUDRIN LV INSECTICIDE should be applied, as needed, to keep pest populations within threshold limits. On most crops, NUDRIN LV INSECTICIDE should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since NUDRIN LV INSECTICIDE is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for peaches and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

NUDRIN LV INSECTICIDE is recommended for use as a low volume aerial spray 0.53 gpa (2L) for cotton\* and soybeans\* and 1 gpa for the crops listed below providing the following conditions are met:

- equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area,
- local regulations do not prohibit low-volume aerial sprays,
- use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa	Celery	Peas (succulent)
Anise	Collards	Peppermint
Asparagus	Corn	Peppers
Beans	Cotton	Potato
Broccoli	Cucumber	Soybean
Brussels sprouts	Lettuce	Spinach
Cabbage	Melons	Sugar beet
Cauliflower	Mint	Summer Squash
Carrot	Peanuts	Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

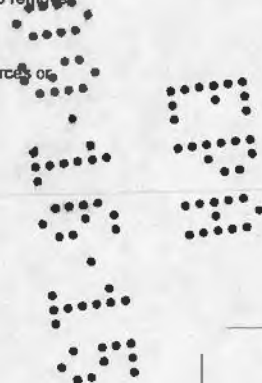
\* Not Registered for aerial application in a diluted volume of less than 1 gal in CA.

## SPRAY TANK CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.



## CHEMIGATION

### Overhead Sprinkler Chemigation

#### Instructions for the Use of NUDRIN LV INSECTICIDE on Alfalfa, Dry Beans, Green and Dry Bulb Onions, Potatoes, Succulent Beans, Succulent Peas, Sugar Beets, Sweet Corn, and Wheat Using Overhead Sprinkler Chemigation

Overhead sprinkler chemigation is allowed for use in alfalfa, succulent and dry beans, onions, succulent peas, potatoes, sugar beets, sweet corn and wheat. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of NUDRIN LV INSECTICIDE as high as possible in the application. Apply NUDRIN LV INSECTICIDE in 0.1 to 0.2 inches of water per acre.

NUDRIN LV INSECTICIDE is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of NUDRIN LV INSECTICIDE should take place when the insects are active and most likely to come into direct contact with the application.

#### Types of Overhead Sprinkler Irrigation Systems:

NUDRIN LV INSECTICIDE may be applied through overhead sprinkler irrigation systems for control of various pests. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply NUDRIN LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this main product label.

#### Directions for Overhead Sprinkler Chemigation:

##### Preparation

A pesticide tank is used for the application of NUDRIN LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of NUDRIN LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of NUDRIN LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7).

##### Injection Into Overhead Sprinkler Chemigation Systems

Inject the proper amount of the NUDRIN LV INSECTICIDE solution into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water.

**Operation:** Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply NUDRIN LV INSECTICIDE in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

Nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices must be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

**Cleaning the System:** Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

## DRIP CHEMIGATION

### Instructions for the Use of NUDRIN LV INSECTICIDE on green and dry bulb onions Using Drip Chemigation

Drip chemigation is allowed in green and dry bulb onions. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

#### Types of Drip Irrigation Systems

The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply NUDRIN LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this main product label.

## **Directions for Drip Chemigation**

### **Drip Guidance:**

1. Tape placement is critical. All products applied via drip irrigation must be deposited in the root zone. Place the tape either under each row or within each bed at the minimum depth that allows planting. The goal is to have the tape within or adjacent to the root zone and buried no more than 2 inches deep.
2. Optimum emitter spacing is 6 inches or less. The maximum emitter spacing must not exceed 12 inches. Emitters must be free of debris and deliver consistent amounts of water. Best results are seen when the same amount of NUDRIN LV INSECTICIDE comes out of each emitter.
3. Adjust the irrigation cycle so that the water reaches the entire root zone without being pushed beyond the root zone.
4. The minimum injection time that will result in uniform distribution of NUDRIN LV INSECTICIDE throughout the field is the time it takes water to move from the injection point to the most distant emitter. Extending the injection time to twice the minimum will improve uniformity of the application. Also applications made with lower delivery volumes of water will improve uniformity.
5. When the drip tape is located between two single or double rows of onions, begin injection of NUDRIN LV INSECTICIDE as soon as the system is up to pressure and continue through the first half to two-thirds of the irrigation cycle. The purpose is to ensure that the NUDRIN LV INSECTICIDE is pushed all the way to the root zone of the outer row and not left in the area around the emitter.
6. Applications should be made before pests reach thresholds.
7. Drip chemigation works best when fields are relatively flat.
8. The tape flow rate should be matched to the soil type, crop and climate. Too much flow can result in puddling and excessive time at soil saturation. Consult the tape manufacturer for more information.

**Preparation:** A pesticide tank is used for the application of NUDRIN LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of NUDRIN LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of NUDRIN LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight.

**Injection into Drip Chemigation Systems:** Inject the proper amount of the NUDRIN LV INSECTICIDE solution into the irrigation water flow. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. The injection solution containing NUDRIN LV INSECTICIDE should be injected during the middle one-third of the irrigation cycle.

**Operation:** Start the water pump and let the system achieve the desired pressure and flow before starting the injector. Start the injector and calibrate the injection system. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Do not apply when system connections or fittings leak or when emitters do not provide uniform distribution.

**Cleaning the System:** Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. NUDRIN LV INSECTICIDE should not be applied at the same time that a drip/irrigation line clean out product is being used as performance may be reduced. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

## **Additional Chemigation Directions (both overhead and drip)**

### **Uniform Water Distribution**

The irrigation system used for application of NUDRIN LV INSECTICIDE must provide for uniform distribution of NUDRIN LV INSECTICIDE treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

### **Equipment calibration**

Calibrate the irrigation system and injector before applying NUDRIN LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairs of application equipment when making adjustments or repairs on the chemigation system when NUDRIN LV INSECTICIDE is in the irrigation water.

### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### **Posting of Areas to be Treated**

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER".

Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

## **SPRAY DRIFT MANAGEMENT**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the [Aerial Drift Reduction Advisory Information](#).

## **AERIAL DRIFT REDUCTION ADVISORY INFORMATION**

### **Importance of Droplet Size**

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See [Wind, Temperature and Humidity](#), and [Temperature Inversions](#) sections of this label.

### **Controlling Droplet Size - General Techniques**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### **Controlling Droplet Size - Aircraft**

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.



- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
- **Boom Length** - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** - Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- **Swath Adjustment** - When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges of the fields, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

## BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

## WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. **AVOID GUSTY OR WINDLESS CONDITIONS.**

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

## TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

## TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

## SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

## AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

## AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

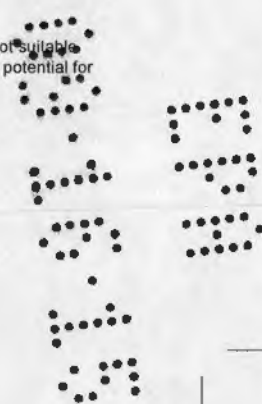
Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift.

*Adjust deflectors and aiming devices so that spray is only directed into the canopy.*

*Block off upward pointed nozzles when there is no overhanging canopy.*

*Use only enough air volume to penetrate the canopy and provide good coverage.*

*Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.*



### CROP AND RATE TABLES

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Western Yellowstriped Armyworm Yellowstriped Armyworm	1 1/2 – 3	7 *	48 hrs
	Alfalfa Weevil Larvae	3		
	Variegated Cutworm	3/4 - 3		
	Do not apply to dormant or semi-dormant alfalfa when minimum daily temp. is 50° F. or lower. Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. Chemigation: NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  * Do not apply within 7 days of cutting or allowing livestock to graze.			
Anise (Fennel)	Cabbage Looper	3	7	48 hrs
	Beet Armyworm	1 1/2 - 3		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Apple Ground application only	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug	1 1/2 - 3 *	14	72 hrs
	Codling Moth (10-12 day spray intervals)			
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	3 *		
	Do not use on Early Macintosh & Wealthy varieties Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop; minimum interval between treatments is 7 days. * Apply in a minimum of 50 gallons of water per acre.			



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI		
Asparagus	Beet Armyworm Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1 1/2 - 3	1	48 hrs		
	Variegated Cutworm	1 1/2				
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.					
Avocado	Western Avocado Leafroller Omnivorous Looper	1 1/2 - 3	1	48 hrs		
	Do not apply more than 3 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.					
Beans (Succulent) Including:  Kidney Lima Mung Navy Pinto Snap Wax Broad Fava Asparagus Blackeyed peas Cowpeas Chick peas Garbanzo beans Sweet lupine White sweet lupine White lupine Grain lupine	Leafhopper Mexican Bean Beetle	3/4 – 3	Succulent Beans - 3/4 - 1 1/2 pts. – 1, over 1 1/2 pts. – 3;  3 - Vines 7 - Hay	48 hrs		
	Fall Armyworm Variegated Cutworm(**)	1 1/2				
	Beet Armyworm(**) Corn Earworm Saltmarsh Caterpillar(**) Yellowstriped Armyworm(**) Western Yellowstriped Armyworm(**) Lygus Bugs Thrips Aphids(**) Loopers(***)	1 1/2 - 3				
	European Corn Borer (Ovicide & Larvicide)-- Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals To control eggs and larvae	1 1/2-3				
	Spotted Cucumber Beetle	3/4 – 1 1/2				
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. * Do not use for Loopers in AL & GA. (**)Chemigation: NUDRIN LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs a.i.) NUDRIN LV INSECTICIDE per acre per crop to succulent beans.					

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Beans (Dry) (Same as Succulent Beans)	(Same as Succulent Beans)	(Same as Succulent Beans)	14 - Dry Beans * 14 - Vines * 14 - Hay *	48 hrs
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. Do not use for Loopers in AL & GA. *Do not apply within 14 days of cutting.  (**)Chemigation: NUDRIN LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs a.i.) NUDRIN LV INSECTICIDE per acre per crop to dry beans.			
Beets (Table)	Imported Cabbageworm	3/4 - 3	0 - roots 10 -tops	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1 1/2 - 3		
	Cucumber Beetle Variegated Cutworm	1 1/2		
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	3/4 - 3	7 - Forage * 3 - Dehydrated Hay **	48 hrs
	Do not apply more than 3 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. * Do not apply within 7 days of feeding forage or allowing livestock to graze. ** Do not apply within 3 days of cutting for hay.			
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1 1/2	3	48 hrs
	Cranberry Fruitworm* Cherry Fruitworm*	1 1/2 - 3		
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	3		
	Blueberry Maggot	3/4 - 1 1/2		
	Do not apply during bloom. Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. * For ground use only.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Broccoli	Loopers Diamondback Moth	1 1/2 - 3**	3	48 hrs
	Imported Cabbageworm	3/4 - 3**		
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			
Brussels Sprouts	Loopers Imported Cabbageworm Diamondback Moth	1 1/2 - 3 **	3	48 hrs
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			
Cabbage	Loopers * Diamondback Moth Fall Armyworm	1 1/2 - 3 **	1	48 hrs
	Imported Cabbageworm	3/4 - 3 **		
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 24 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 15 applications per crop; minimum interval between treatments is 2 days. * Do not use for Loopers in AL & GA. ** Add a wetting agent to improve coverage.			
Carrot	Beet Armyworm Armyworms Aster Leafhopper	1 1/2 - 3	1	48 hrs
	Variegated Cutworm	3/4 - 1 1/2		
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Cauliflower	Imported Cabbageworm	3/4 - 3 **	3	48 hrs
	Loopers Diamondback Moth	1 1/2 - 3 **		
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 24 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			
Celery	Beet Armyworm Aster Leafhopper	1 1/2 - 3	7	48 hrs
	Loopers	3		
	Variegated Cutworm	1 1/2		
	Armyworms	3/4 - 3		

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1 1/2 - 3	80	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
Chinese Cabbage	Loopers Beet Armyworm	1 1/2 - 3*	10	48 hrs
	Do not apply more than 24 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. * Minimum of 25 gallons water per acre by ground or 5 gallons by air.			
Collards (Fresh market only)	Diamondback Moth Variegated Cutworm	1 1/2	10	48 hrs
	Imported Cabbageworm Beet Armyworm Loopers*	1 1/2 - 3		
	Do not apply when temp. is less than 50° F. Do not apply when crop is less than 10" tall. Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. * Do not use for Loopers in AL & GA.			
Corn (Field, Popcorn & Seed)	Earworm – (Ovicide/Larvicide) Armyworm Fall Armyworm European Corn Borer -Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids	3/4 – 1 1/2	21 - Ears 3 - Forage* 21 - Stover*	48 hrs
	Variegated Cutworm, Beet Armyworm	1 1/2		
	Do not apply more than 7.5 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop. *Corn forage is green actively growing plants that are harvested with the ears intact. The plants can be fed directly to animals or used to make silage. Corn stover are the parts of the plant that remain after removal of the grain at full plant maturity. These remaining stalks and leaves can be fed as roughage to animals. Timing of application: Do not make more than two applications to corn prior to tassel push. Make 1 application when corn is at 1-2 leaf stage for control of early season pests; make a second application, if needed, 5-7 days later.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Corn (Sweet)	Earworm-Whorl as needed	1 – 1 1/2	0 -Ears 3 - Forage 21 - Stover	48 hrs
	Fall Armyworm* Armyworm* Earworm*, (Ovicide/Larvicide) European Corn Borer -Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids*	3/4 – 1 1/2		
	Variegated Cutworm Beet Armyworm*	1 1/2		
	Certain hybrid varieties of sweet corn are susceptible to methomyl injury. Treat a small area to determine crop safety before full scale spraying. Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 28 applications per crop; minimum interval between treatments is 1 day.  *Chemigation: NUDRIN LV INSECTICIDE may be applied via overhead sprinkler in CO & NM at the rate of 1 1/2 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 1 day intervals or until insect populations are brought below threshold. Do not apply more than 21 pints (6.3 lbs a.i.) NUDRIN LV INSECTICIDE per crop to sweet corn. Make the last application of NUDRIN LV INSECTICIDE at least 0 days for ears, 3 days for forage, or 21 days for stover before harvest. Timing of application: Do not make more than two applications to corn prior to tassel push. Make 1 application when corn is at 1-2 leaf stage for control of early season pests; make a second application, if needed, 5-7 days later.			



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI		
Cotton - All US	Ovicide/Larvicide - Bollworm Tobacco Budworm (Initiate schedule when significant numbers of eggs are present. Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) Start treatment on low level population for suppression.	2/5 - 3/4 (see Insect Predator Section)	15	72 hrs		
	Cotton Leafworm	3/4 - 1 1/2				
	Cotton Fleahopper (as needed)	2/5 - 3/4				
	Aphids, Thrips	3/4				
East of Rockies only	(Early Season) Bollworm Tobacco Budworm Beet Armyworm Cotton Leafperforator Fall Armyworm Lygus Bugs/Plant Bugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10 days.	1 1/2				
	(Late Season) Bollworm Tobacco Budworm Beet Armyworm Cotton Leafperforator Fall Armyworm Lygus Bugs/Plant Bugs (adult and nymphs) Up to 3 applications at 3-5 day intervals after desired boll load set on plants.	1 1/2 - 2 1/4				
Texas	Cotton Aphid	3/4 - 2				
West of Rockies only	Larvicide for worms: Bollworm Fall Armyworm Tobacco Budworm Lygus Bugs Beet Armyworm	1 1/2 - 2 1/4				
	Cotton Leafperforator	1 - 2 1/4				
For applications West of the Rockies, make applications on 3-5 day intervals after desired boll load set on plants. For all applications made to cotton in the United States: Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. Do not graze or feed. Use may redden cotton. If excessive, stop or alternate with other insecticides.						



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Cucumber	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pt. – 1 Over 1 1/2 pt.- 3	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop.			
Eggplant	Green Peach Aphid	3/4 – 3	5	48 hrs
	Tomato Pinworm (Ground Application Only) Beet Armyworm Corn Earworm	1 1/2 - 3		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Endive, Escarole	Beet Armyworm	1 1/2 - 3	10	48 hrs
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Garlic	Beet Armyworm	1 1/2**	7	48 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop. ** Add a wetting agent to improve coverage.			
Grapefruit CA, AZ & HI only	Thrips Fruitree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
Horseradish (Ground application Only)	Aphids Thrips	1 1/2	65	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Leafy Green Vegetables:</b> Beet (tops) Dandelions, Kale, Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1 1/2 - 3	10	48 hrs
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. * Do not use for Cabbage Loopers in AL & GA.			
<b>Lemon</b> CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Lentils</b>	Western Yellowstriped Armyworm	1 1/2 - 3	21	48 hrs
	Do not apply more than 3 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
<b>Lettuce</b>  (Head and Leaf varieties)	Alfalfa Looper	3/4 - 3	3/4-1 1/2 pt. -- 7 over 1 1/2 pts. -- 10	48 hrs
	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1 1/2 - 3		
	Variegated Cutworm	1 1/2		
	<b>Lettuce (head varieties)</b> Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop; minimum interval between treatments is 2 days. <b>Lettuce (leaf varieties)</b> Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop; minimum interval between treatments is 2 days.			
<b>Melons</b> Including: Cantaloupe Casaba Santa Claus melon Crenshaw melon Honeydew melon Honey balls Persian melon Golden Pershaw melon Mango melon Pineapple melon Snake melon Watermelon	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pts. -- 1 day over 1 1/2 pts. -- 3 days	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI														
Mint (Peppermint, Spearmint)	Variegated Cutworm Alfalfa Looper	3	14	48 hrs														
	Flea Beetles	2 1/4 - 3																
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.																	
Nectarine CA & AZ only	Thrips	1 1/2 – 3	1	72 hrs														
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 3 applications per crop.																	
Onions (Green & Dry Bulb)	Beet Armyworm	1 1/2 - 3**	7 - Green & Dry Bulb Onions	48 hrs														
	Thrips*** Variegated Cutworm Black Cutworm	3**																
	<p><b>Onions, green</b> Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 5 days.</p> <p><b>Onions, dry bulb</b> Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum treatment interval between treatments is 5 days.</p> <p>*Chemigation: NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation to control thrips. Begin applications before thrips populations reach 3-5 thrips per plant. For best results, use the highest rate of NUDRIN LV INSECTICIDE and a wetting agent. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.</p> <p>** Add a wetting agent to improve coverage.</p> <p>***Drip Chemigation: NUDRIN LV INSECTICIDE may be applied via drip irrigation systems in ID, NV, OR, UT, and WA. NUDRIN LV INSECTICIDE controls thrips at the rate of 3 pints of product per acre of plant bed applied thru drip irrigation systems. The rate of NUDRIN LV INSECTICIDE is listed as a broadcast rate. For drip irrigation rates of NUDRIN LV INSECTICIDE to be applied per 1000 feet, see the table at the end of this section. Treatments should begin before populations of thrips reach 3-5 thrips per plant. Acidify the injection solution containing NUDRIN LV INSECTICIDE to a pH of 5 or less. Once thrips populations reach an average of 10 thrips per plant or higher, it is very difficult to achieve satisfactory control with any insecticide program. Make sequential applications at 7 to 10 day intervals. Consider use of products with an alternate mode of action as part of your thrips control program. Do not apply more than 12 pints (3.6 lbs a.i.) NUDRIN LV INSECTICIDE per crop to dry bulb onions. Do not apply more than 18 pints (5.4 lbs a.i.) NUDRIN LV INSECTICIDE per crop to green onions. Make the last application of NUDRIN LV INSECTICIDE at least 7 days before harvest.</p> <p><b>Instructions for the Use of NUDRIN LV INSECTICIDE in Drip Chemigation</b></p> <table><tr><th>Bed Spacing</th><th>Linear Ft. of Bed to Equal one Acre</th><th>NUDRIN LV INSECTICIDE Pt./A rateper 1000 Row Feet</th></tr><tr><td>36 inches</td><td>14,520 ft.</td><td>3.3 fl. oz.</td></tr><tr><td>48 inches</td><td>10,890 ft.</td><td>4.4 fl. oz.</td></tr><tr><td>60 inches</td><td>8,712 ft.</td><td>5.5 fl. oz.</td></tr><tr><td>72 inches</td><td>7,260 ft.</td><td>6.6 fl. oz.</td></tr></table>				Bed Spacing	Linear Ft. of Bed to Equal one Acre	NUDRIN LV INSECTICIDE Pt./A rateper 1000 Row Feet	36 inches	14,520 ft.	3.3 fl. oz.	48 inches	10,890 ft.	4.4 fl. oz.	60 inches	8,712 ft.	5.5 fl. oz.	72 inches	7,260 ft.
Bed Spacing	Linear Ft. of Bed to Equal one Acre	NUDRIN LV INSECTICIDE Pt./A rateper 1000 Row Feet																
36 inches	14,520 ft.	3.3 fl. oz.																
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Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Oranges</b> CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruitree Leafroller Beet Armyworm Citrus Cutworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Peaches</b>	Catfacing Insects (Plant Bugs and Slink Bugs) - begin at petal fall and continue in cover sprays at 7 to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use. Green Peach Aphid	3 pt (or 3/4 pt per 100 gal up to 400 gal per acre)	4	4 days
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop. * Oriental Fruit Moth (Ground Application Only).			
<b>Peanuts</b>	Corn Earworm* Potato Leafhopper Fall Armyworm	3/4 - 3	21	48 hrs
	Beet Armyworm	1 1/4 - 3		
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	1 1/2 - 3		
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. Do not feed treated vines. * NUDRIN LV INSECTICIDE has ovicidal and larvicidal control on corn earworm. **Soybean Looper is difficult to control. Do not apply to worms greater than 1/2" long. Use higher rate for severe infestations.			
<b>Pears</b> Northeast only	Green Fruitworm Oblique banded Leafroller	1 1/2 - 3*	7	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop. * Apply in a minimum of 50 gallons of water per acre.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Peas</b> (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas Garden peas Green peas English Peas Field peas Edible pod peas	Alfalfa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1 1/2 - 3	1 - Peas 5 - Forage 14 - Hay	48 hrs
	Alfalfa Caterpillar Armyworm Green Cloverworm	3/4 - 3		
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop . Do not make more than 6 applications per crop; minimum interval between treatments is 3 days. * Do not use for Cabbage Loopers in AL & GA. Chemigation: NUDRIN LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 9 pints (2.7 lbs a.i.) of NUDRIN LV INSECTICIDE per acre per crop to succulent peas.			
<b>Pecans</b> Southeast only	Aphids	1 1/2 - 3	30	48 hrs
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 7 applications per crop.			
<b>Peppers</b> Including: Bell Hot Pimentos Sweet	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1 1/2 - 3	3	48 hrs
	Variegated Cutworm	3/4 - 1 1/2		
	European Corn Borer	3		
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
<b>Pomegranates</b>	Omnivorous Leafroller	3	14	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Potato	Tuberworm* Loopers Aphids Beet Armyworm Leafhoppers Fall Armyworm	1 1/2 – 3	6	48 hrs
	Variegated Cutworm Flea Beetles	1 1/2		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. Chemigation - NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Repeat applications of NUDRIN LV INSECTICIDE on a 5-7 day schedule, or longer as needed, to control tuber worm populations. An application schedule of effective insecticides with different modes of action may be needed to keep foliar feeding larval populations as low as possible prior to harvest to reduce the risk of larval damage to the tubers. Failure to adequately control tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage.			
Sorghum Including: Sudangrass (except Sweet Sorghum)	Sorghum Webworm	1 1/2*	14**	48 hrs
	Sorghum Midge —Apply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm Armyworm	3/4 – 1 1/2*		
	Do not apply more than 3 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop. * Minimum of 10 gallons per acre by ground or 2 gallons per acre by air. ** Do not apply within 14 days of feeding forage or cutting for hay.			



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Soybeans	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm - Light to moderate infestations	2/5 - 3/4 (see Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs
	Corn Earworm - Moderate to severe infestations	3/4 - 1 1/2		
	Soybean Aphid	1/2 - 1		
	Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper - Light to moderate infestations	3/4 - 1		
	Silver Spotted Skipper - Moderate to severe infestations	1 - 1 1/2		
	Do not apply more than 4.5 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 3 applications per crop.			
Spinach	Alfalfa Looper Cabbage Looper Beet Armyworm Fall Armyworm	1 1/2 - 3	7	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply when minimum daily temp. is 32° F. or lower. Do not apply to seedlings less than 3" diameter. Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Sugar Beet	Beet Webworm Flea Beetles Carrion Beetles Beet Armyworm* Aphids* Western Yellowstriped Armyworm*	3/4 - 3	30 - Tops 21- Roots	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. *Chemigation - NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation to control beet armyworm, aphids and western yellowstriped armyworm. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Summer Squash*</b> Including: Crookneck squash Straightneck squash Scallop squash Vegetable marrow Spaghetti squash Hyotan Cucuzza Hechima Chinese okra Bitter melon Balsam pear Balsam apple Chinese Cucumber	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pt. — 1 day over 1 1/2 pt.— 3 days	48 hrs
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop. * Fruit of the Gourd (Cucurbitaceae) family that are consumed when immature, 100% of the fruit is edible cooked or raw, once picked cannot be stored, has a soft rind which is easily penetrated, and if seeds were harvested they would not germinate.			
<b>Tangelo, Tangerine</b> CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Tobacco</b> (Except shade)	Flea Beetle Hornworm	3/4 – 1 1/2	5 - Flue cured 14 - Air or fire cured	48 hrs
	Loopers Aphids Tobacco Budworm Fall Armyworm	1 1/2		
	Do not apply more than 7.5 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop.			
<b>Tomato</b> (including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1 1/2 - 3	1	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 16 applications per crop. * For tomatillos do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Turf</b> (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	3 (1.1 fl. ozs. per 1000 sq. ft.)		48 hrs
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Do not graze or feed.			
<b>Wheat</b> (States of Idaho, Oregon, and Washington only)	Armyworms Cereal Leaf Beetle* Aphids**	3/4 – 1 1/2	7	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Chemigation: NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: NUDRIN LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.  **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container.** Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**All Refillable Containers: Refillable container. Refilling Container:** Refill this container with NUDRIN LV INSECTICIDE containing methomyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see proceeding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not transport if container is damaged or leaking.

**In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.**



## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam North America, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam North America, Inc. and Seller harmless for any claims relating to such factors.

Rotam North America, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam North America, Inc., and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM NORTH AMERICA, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the extent consistent with applicable law, Rotam North America, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM NORTH AMERICA, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM NORTH AMERICA, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Rotam North America, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam North America, Inc.

Registered: 04/05/2011  
Amended: 11/23/2011

Manufactured for:  
**ROTAM NORTH AMERICA, INC.**  
4900 Koger Blvd. Suite #140  
Greensboro, NC 27407  
1-866-927-6826



# RESTRICTED USE PESTICIDE DUE TO HIGH ACUTE TOXICITY TO HUMANS

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

# NUDRIN™ LV INSECTICIDE

Water Soluble Liquid

Active Ingredient

Methomyl (S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate).....

Other Ingredients.....

TOTAL.....

Contains Methanol

Contains 2.4 lbs. active ingredient per gallon

By Weight

29%

71%

100%

KEEP OUT OF REACH OF CHILDREN

**DANGER POISON**  
**PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

## FIRST AID

(N-Methyl Carbamate Insecticide)

**IF IN EYES:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.  
**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.  
**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.  
**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.  
**ATROPINE IS AN ANTIDOTE - SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.**  
If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.  
**POISONING SYMPTOMS:** - Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

## NOTE TO PHYSICIAN

Potential mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT:** - Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropization is achieved. Maintain atropization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to this cholinergic inhibitor until recovery is assured.  
Do not use 2-PAM for exposure to NUDROLV INSECTICIDE alone. However, for exposure to combinations of NUDROLV INSECTICIDE and organophosphorus insecticides, 2-PAM may be used as adjunct to supplement the atropine sulfate treatment. Do not use morphine.  
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.  
You may also contact the National Poison Control Center 24-hour Emergency Hotline at: 1-800-222-1222.

## PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.  
Contains Methanol. Methanol may cause blindness. Corrosive. Causes irreversible eye damage. Causes irreversible eye damage. May be fatal if swallowed or if inhaled. Harmful if absorbed through skin. Do not get in eyes or on clothing. Do not breathe spray mist. Avoid contact with skin.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as natural rubber or other materials in EPA category C.
- Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14C), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with a prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

NUDLV-03-A021915-RFVCR \*2215-JG

EPA Reg. No.: 83100-27-83979

EPA Est. No.: 5905-GA-01

GROUP 1A INSECTICIDE

## ENGINEERING CONTROL STATEMENTS

Human handlers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.  
The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d) (4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.  
Pilots must not assist in the mixing and loading operations.

## USER SAFETY RECOMMENDATIONS

USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.  
This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treated area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.  
This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlying tile drainage systems that drain to surface water.

## PHYSICAL AND CHEMICAL HAZARDS

**Combustible.** Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation. The product shows potential explosive properties when heated to elevated temperatures.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval (REI). The requirements in this label apply to uses of this product that are covered by the Worker Protection Standard.  
Do not enter or allow workers into treated areas during the restricted entry interval (REI). REI Summary: REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- Shoes plus socks.
- Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

## CONTAINER HANDLING:

**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 5 Gallons):** Nonrefillable containers. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers (IBCs) (Size or Shape Too Large to Be Tipped, Rolled or Turned Upside Down):** Nonrefillable containers. Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate from the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**All Refillable Containers:** Refillable container. Refill this container with NUDROLV INSECTICIDE containing methomyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Containers: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat the rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not transport if container is damaged or leaking.

In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300

See inside booklet for complete Directions for Use.

Manufactured for: ROTAM NORTH AMERICA, INC., 4900 Koger Blvd., Suite #140, Greensboro, NC 27407, 1-866-927-6826  
NET CONTENTS: 55 GALLONS (208.19 liters) Non-Refillable Plastic Container



# PROCESSING REQUEST

Reg #: 83100-27

Decision #: 499728

Description: Methomyl Mitigation Label

## Material Available Electronically (see PPLS):

☒ Electronic Label/Letter Dated: 2/19/15

☐ Other:

## Material Sent (see jacket):

☐ Stamped Label/Letter Dated:

☐ Notification Dated:

☐ New CSF(s) Dated:

☐ Other:

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: ~~Srinivas Gowda~~ Carlyn Petrella

Division: ~~AD/RMB2~~ RDI/VB2

Phone: 347-0439

Date: ~~11/25/14~~ 2/19/15



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

February 19, 2015

Cheryl Wagner  
Rotam Agrochemical Co. Ltd.  
c/o Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707

Subject: Label Amendment – Methomyl Mitigation. Delete Uses on Barley, Oats and Rye.  
Reduce Application Rates on Various Commodities.  
Product Name: Rotam Methomyl 29 LV Insecticide  
EPA Registration Number: 83100-27  
Application Date: January 16, 2015  
Decision Number: 499728

Dear Ms. Wagner:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.



Page 2 of 2

EPA Reg. No. 83100-27

Decision No. 499728

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Carlyn Petrella by phone at 703-347-0439, or via email at [petrella.carlyn@epa.gov](mailto:petrella.carlyn@epa.gov).

Sincerely,



Richard Gebken  
Product Manager 10  
Invertebrate & Vertebrate Branch 2  
Office of Pesticide Programs

Enclosure

## RESTRICTED USE PESTICIDE

Due to high Acute Toxicity to Humans

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP

1A

INSECTICIDE

# Rotam Methomyl 29LV Insecticide

### Water Soluble Liquid

Contains 2.4 lbs. active ingredient per gallon

#### Active Ingredient:

Methomyl (S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate).....29%

By Weight

Other Ingredients: .....71%

Total: .....100%

Contains Methanol

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER POISON**



**PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

**ACCEPTED**

**02/19/2015**

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 83100-27

### FIRST AID

#### (N-Methyl Carbamate insecticide)

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.**

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

**POISONING SYMPTOMS** - Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT-** Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 29LV INSECTICIDE alone. However, for exposure to combinations of ROTAM METHOMYL 29LV and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.

EPA Reg. No.: 83100-27

EPA Est. No.:

Net Contents:

Manufactured For [By]:

Rotam Agrochemical Co., Ltd.

26/F E-Trade Plaza

24 Lee Chung Street

Chaiwan, Hong Kong

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS**  
**AND DOMESTIC ANIMALS**  
**KEEP OUT OF REACH OF CHILDREN**  
**DANGER POISON**



**PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Contains Methanol. Methanol may cause blindness. Corrosive. Causes irreversible eye damage. May be fatal if swallowed or if inhaled. Harmful if absorbed through skin. Do not get in eyes or on clothing. Do not breathe spray mist. Avoid contact with skin.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as natural rubber or other materials in EPA category C.
- Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROL STATEMENTS**

**Human flaggers must be in enclosed cabs.**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR Part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

**Pilots must not assist in the mixing and loading operations.**

#### USER SAFETY RECOMMENDATIONS

##### USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean highwater mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation. The product shows potential explosive properties when heated to elevated temperatures.

#### DIRECTIONS FOR USE

##### Restricted Use Pesticide

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or butyl rubber
- Shoes plus socks
- Protective eyewear

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.



Do not reuse them.

Do not formulate this product into other end-use products.

ROTAM METHOMYL 29LV INSECTICIDE is a water soluble liquid that is applied by foliar application to control many important insect pests. ROTAM METHOMYL 29LV INSECTICIDE is mixed with water for application.

Chemigation: Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Pilots must not assist in the mixing and loading operations.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra-low volume application is made.

Hand-held equipment is prohibited for applications to crops. This product must be applied to crops only with mechanical ground, overhead sprinkler chemigation or aerial application equipment.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### RESISTANCE MANAGEMENT

For resistance management, ROTAM METHOMYL 29LV INSECTICIDE is a group 1A insecticide. Repeated and exclusive use of ROTAM METHOMYL 29LV INSECTICIDE or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.irac-online.org>.

#### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of ROTAM METHOMYL 29LV INSECTICIDE based on locally determined economic thresholds. More than one treatment of ROTAM METHOMYL 29LV INSECTICIDE may be required to control a population of pests.

#### BENEFICIAL ARTHROPODS

ROTAM METHOMYL 29LV INSECTICIDE at rates of 2/5 to 3/4 pint per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ROTAM METHOMYL 29LV INSECTICIDE. Fill spray tank 1/4 to 1/2 full of water. Add ROTAM METHOMYL 29LV INSECTICIDE directly to spray tank. Mix thoroughly. Use mechanical or hydraulic means; do not use air agitation. Spray mix should not be stored overnight in spray tank.

Compatibility - Since formulations may be changed and new ones introduced, in this situation users can premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.) before applying the product. Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use ROTAM METHOMYL 29LV INSECTICIDE with Bordeaux mixture (copper sulfate and hydrated lime), Du Ter triphenyltin hydroxide, lime sulfur, Rayplex iron nor in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

Tank Mix Sequence - Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

1. Water soluble bags.
2. Water dispersible granules.
3. Wettable powders.
4. Water based suspension concentrates.
5. ROTAM METHOMYL 29LV INSECTICIDE and other water soluble concentrates.
6. Oil based suspension concentrates.
7. Emulsifiable concentrates.
8. Adjuvants, surfactants, oils, soluble fertilizers, and drift retardants. Follow local practice and manufacturer's recommendation.

#### APPLICATION

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of ROTAM METHOMYL 29LV INSECTICIDE should be applied, as needed, to keep pest populations within threshold limits. On most crops, ROTAM METHOMYL 29LV INSECTICIDE should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since ROTAM METHOMYL 29LV INSECTICIDE is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals., per acre (gpa) except 10 gpa for peaches and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos, and tangerines.

ROTAM METHOMYL 29LV INSECTICIDE is recommended for use as a low volume aerial spray 0.53 gpa (2L) for cotton\* and soybeans\* and 1 gpa for the crops listed below providing the following conditions are met:

- equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area,
- local regulations do not prohibit low-volume aerial sprays,
- use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa	Celery	Peas (succulent)
Anise	Collards	Peppermint
Asparagus	Corn	Peppers
Beans	Cotton	Potato
Broccoli	Cucumber	Soybean
Brussels sprouts	Lettuce	Spinach

Cabbage	Melons	Sugar beet
Carrot	Mint	Summer Squash
Cauliflower	Peanuts	Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

\*Not registered for aerial application in a diluted volume of less than 1 gal. in CA.

#### **SPRAY TANK CLEANOUT**

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources, or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### **CHEMIGATION**

##### **Overhead Sprinkler Chemigation**

**Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE on Alfalfa, Dry Beans, Green and Dry Bulb Onions, Potatoes, Succulent Beans, Succulent Peas, Sugar Beets, Sweet Corn, and Wheat Using Overhead Sprinkler Chemigation**

Overhead sprinkler Chemigation is allowed for use in alfalfa, succulent and dry beans, onions, succulent peas, potatoes, sugar beets, sweet corn, and wheat. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Overhead Chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical Chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of ROTAM METHOMYL 29LV INSECTICIDE as high as possible in the application. Apply ROTAM METHOMYL 29LV INSECTICIDE in 0.1 to 0.2 inches of water per acre.

ROTAM METHOMYL 29LV INSECTICIDE is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of ROTAM METHOMYL 29LV INSECTICIDE should take place when the insects are active and most likely to come into direct contact with the application.

##### **Types of Overhead Sprinkler Irrigation Systems**

ROTAM METHOMYL 29LV INSECTICIDE may be applied through overhead sprinkler irrigation systems for control of various pests. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible buildup of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this main product label.

##### **Directions for Overhead Sprinkler Chemigation**

Preparation: A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in Chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7).



**Injection Into Overhead Sprinkler Chemigation System:** Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water.

**Operation:** Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply ROTAM METHOMYL 29LV INSECTICIDE in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

Nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices must be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

**Cleaning the System:** Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### **Drip Chemigation**

##### **Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE on green and dry bulb onions Using Drip Chemigation**

Drip Chemigation is allowed in green and dry bulb onions. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

#### **Types of Drip Irrigation Systems**

The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible buildup of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this main product label.

#### **Directions for Drip Chemigation**

##### **Drip Guidance:**

1. Tape placement is critical. All products applied via drip irrigation must be deposited in the root zone. Place the tape either under each row or within each bed at the minimum depth that allows planting. The goal is to have the tape within or adjacent to the root zone and buried no more than 2 inches deep.
2. Optimum emitter spacing is 6 inches or less. The maximum emitter spacing must not exceed 12 inches. Emitters must be free of debris and deliver consistent amounts of water. Best results are seen when the same amount of ROTAM METHOMYL 29LV INSECTICIDE comes out of each emitter.
3. Adjust the irrigation cycle so that the water reaches the entire root zone without being pushed beyond the root zone.
4. The minimum injection time that will result in uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE throughout the field is the time it takes water to move from the injection point to the most distant emitter. Extending the injection time to twice the minimum will improve uniformity of the application. Also applications made with lower delivery volumes of water will improve uniformity.
5. When the drip tape is located between two single or double rows of onions, begin injection of ROTAM METHOMYL 29LV INSECTICIDE as soon as the system is up to pressure and continue through the first half to two-thirds of the irrigation cycle. The purpose is to ensure that the ROTAM METHOMYL 29LV INSECTICIDE is pushed all the way to the root zone of the outer row and not left in the area around the emitter.
6. Applications should be made before pests reach thresholds.



7. Drip chemigation works best when fields are relatively flat.
8. The tape flow rate should be matched to the soil type, crop and climate. Too much flow can result in puddling and excessive time at soil saturation. Consult the tape manufacturer for more information.

**Preparation:** A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight.

**Injection Into Drip Chemigation Systems:** Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. The injection solution containing ROTAM METHOMYL 29LV INSECTICIDE should be injected during the middle one-third of the irrigation cycle.

**Operation:** Start the water pump and let the system achieve the desired pressure and flow before starting the injector. Start the injector and calibrate the injection system. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Do not apply when system connections or fittings leak or when emitters do not provide uniform distribution.

**Cleaning the System:** Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. ROTAM METHOMYL 29LV INSECTICIDE should not be applied at the same time that a drip/irrigation line clean out product is being used as performance may be reduced. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### **Additional Chemigation Directions (both overhead and drip)**

##### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 29LV INSECTICIDE must provide for uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

##### **Equipment Calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 29LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

##### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 29LV INSECTICIDE is in the irrigation water.

##### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### **Posting of Areas to be Treated**

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH.

Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background.

At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### **SPRAY DRIFT MANAGEMENT**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

#### AERIAL DRIFT REDUCTION ADVISORY INFORMATION

##### Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See **Wind**, **Temperature and Humidity**, and **Temperature Inversions** sections of this label.

##### Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

##### Controlling Droplet Size - Aircraft

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
- **Boom Length** - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** - Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- **Swath Adjustment** - When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges of the fields, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

#### BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.



## **WIND**

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. **AVOID GUSTY OR WINDLESS CONDITIONS.**

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

## **TEMPERATURE AND HUMIDITY**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

## **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## **SENSITIVE AREAS**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

## **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

## **AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS**

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

## **AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS**

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift.

*Adjust deflectors and aiming devices so that spray is only directed into the canopy.*

*Block off upward pointed nozzles when there is no overhanging canopy.*

*Use only enough air volume to penetrate the canopy and provide good coverage.*

*Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.*



**CROP RATE TABLE**

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application - Days To Harvest	REI
Alfalfa	Pea Aphid	1 1/2 - 3	7*	48 hrs.
	Lygus Bugs			
	Blotch Leafminer			
	Aphids			
	Egyptian Alfalfa			
	Weevil Larvae			
	Loopers			
	Beet Armyworm			
	Armyworm			
	Alfalfa Caterpillar			
Fall Armyworm				
Western Yellowstriped Armyworm				
Yellowstriped Armyworm				
Alfalfa Weevil Larvae	3			
Variegated Cutworm	3/4 - 3			
Do not apply to dormant or semi-dormant alfalfa when minimum, daily temp, is 50°F, or lower. Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. <b>Chemigation:</b> ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information. *Do not apply within 7 days of cutting or allowing livestock to graze.				
Anise (Fennel)	Cabbage Looper	3	7	48 hrs.
	Beet Armyworm	1 1/2 - 3		
Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.				
Apple (Ground application only)	Apple Aphid	1 1/2 - 3*		
	Rosy Apple Aphid			
	Tufted Apple Budmoth			
	Green Fruitworm			
	Tarnished Plant Bug			
	Codling Moth			
	(10-12 day spray intervals)		14	72 hrs.
	Leafrollers			
	(Fruit-tree, Obliquebanded, Redbanded, Variegated)	3*		
	Lesser Appleworm			
	White Apple			
	Leafhopper			
	Tentiform Leafminer			
	Cutworm			

Do not use on Early Macintosh & Wealthy varieties Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop; minimum interval between treatments is 7 days. *Apply in a minimum of 50 gallons of water per acre.					
Asparagus	Beet Armyworm	1 1/2 - 3	1	48 hrs.	
	Western Yellowstriped Armyworm				
	Asparagus Beetle				
	Spotted Asparagus Beetle	1 1/2			
	White Cutworm				
	Redbacked Cutworm				
	Variegated Cutworm				
Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.					
Avocado	Western Avocado Leafroller	1 1/2 - 3	1	48 hrs.	
	Omnivorous Looper				
	Do not apply more than 3 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.				
Beans (Succulent) Including: Kidney, Lima, Mung, Navy, Pinto, Snap, Wax, Broad, Fava, Asparagus, Blackeyed peas, Cowpeas, Chick peas, Garbanzo beans, Sweet lupine, White sweet lupine, White lupine, Grain lupine	Leafhopper	3/4 - 3	Succulent Beans 3/4 - 1 1/2 pts.-- 1 Over 1 1/2 pts. -- 3 3 - Vines 7 - Hay	48 hrs.	
	Mexican Bean Beetle	1 1/2			
	Fall Armyworm				
	Variegated Cutworm(**)	1 1/2 - 3			
	Beet Armyworm(**)				
	Corn Earworm				
	Saltmarsh Caterpillar(**)				
	Yellowstriped Armyworm(**)				
	Western Yellowstriped Armyworm(**)				
	Lygus Bugs				
Thrips					
Aphids(**)	3/4 - 1 1/2				
Loopers*(**)					
European Corn Borer (Ovicide & Larvicide) -- Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals to control eggs and larvae.					
Spotted Cucumber Beetle			3/4 - 1 1/2		

	<p>Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. *Do not use for Loopers in AL &amp; GA. (**) <b>Chemigation:</b> ROTAM METHOMYL 29LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, &amp; WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5- to 7-day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs. a.i.) ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to succulent beans.</p>			
<b>Beans</b> (Dry) (Same as Succulent Beans)	(Same as Succulent Beans)	(Same as Succulent Beans)	<p>14 - Dry Beans*</p> <p>14 - Vines*</p> <p>14 - Hay*</p>	
	<p>Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE/acre/crop. Do not make more than 10 applications per crop. Do not use for Loopers in AL &amp; GA. *Do not apply within 14 days of cutting. (**) <b>Chemigation:</b> ROTAM METHOMYL 29LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, &amp; WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5- to 7-day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs. a.i.) ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to dry beans.</p>			48 hrs.
<b>Beets</b> (Table)	<p>Imported Cabbageworm</p> <p>Beet Armyworm</p> <p>Cabbage Looper</p> <p>Diamondback Moth</p> <p>Cucumber Beetle</p> <p>Variegated Cutworm</p>	<p>3/4 - 3</p> <p>1 1/2 - 3</p> <p>1 1/2</p>	<p>0 - roots</p> <p>10 - tops</p>	48 hrs.
	<p>Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.</p>			
<b>Bermudagrass pasture</b>	<p>Fall Armyworm</p> <p>Armyworm</p> <p>Striped Grass Looper</p>	3/4 - 3	<p>7 - Forage*</p> <p>3 - Dehydrated Hay**</p>	
	<p>Do not apply more than 3 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. *Do not apply within 7 days of feeding forage or allowing livestock to graze. **Do not apply within 3 days of cutting for hay.</p>			48 hrs.
<b>Blueberries</b>	<p>Blueberry Leafhopper</p> <p>Aphids</p> <p>Tussock Moth</p> <p>Weevil</p> <p>Sharp-Nosed Leafhopper</p>	1 1/2	3	48 hrs.

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	Cranberry Fruitworm*	1 1/2 - 3		
	Cherry Fruitworm*			
	Flea Beetle (larvae)	3		
	Sawfly (larvae)			
	Blueberry Leafroller			
	Blueberry Maggot	3/4 - 1 1/2		
	Do not apply during bloom. Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. *For ground use only.			
Broccoli	Loopers	1 1/2 - 3**	3	48 hrs.
	Diamondback Moth			
	Imported Cabbageworm	3/4 - 3**		
	Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. **Add a wetting agent to improve coverage.			
Brussels Sprouts	Loopers	1 1/2 - 3**	3	48 hrs.
	Imported Cabbageworm			
	Diamondback Moth			
	Variegated Cutworm	1 1/2**		
Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.				
Cabbage	Loopers*	1 1/2 - 3**	1	48 hrs.
	Diamondback Moth			
	Fall Armyworm			
	Imported Cabbageworm	3/4 - 3**		
	Variegated Cutworm	1 1/2**		
Do not apply more than 24 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 15 applications per crop; minimum interval between treatments is 2 days. *Do not use for Loopers in AL & GA. **Add a wetting agent to improve coverage.				
Carrot	Beet Armyworm	1 1/2 - 3	1	48 hrs.
	Armyworms			
	Aster Leafhopper			
	Variegated Cutworm	3/4 - 1 1/2		
Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.				
Cauliflower	Imported Cabbageworm	3/4 - 3**	3	48 hrs.
	Loopers	1 1/2 - 3**		
	Diamondback Moth			
	Variegated Cutworm	1 1/2**		
Do not apply more than 24 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. **Add a wetting agent to improve coverage.				
Celery	Beet Armyworm	1 1/2 - 3	7	48 hrs.
	Aster Leafhopper			



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	Loopers	3		
	Variegated Cutworm	1 1/2		
	Armyworms	3/4 - 3		
	Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Chicory	Beet Armyworm	1 1/2 - 3	80	48 hrs.
	Variegated Cutworm Leafhoppers			
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
Chinese Cabbage	Loopers	1 1/2 - 3*	10	48 hrs.
	Beet Armyworm			
	Do not apply more than 24 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. *Minimum of 25 gallons water per acre by ground or 5 gallons by air.			
Collards (Fresh market only)	Diamondback Moth	1 1/2	10	48 hrs.
Collards (Fresh market only)	Variegated Cutworm			
	Imported Cabbageworm	1 1/2 - 3	10	
	Beet Armyworm			
	Do not apply when temp, is less than 50°F. Do not apply when crop is less than 10" tall. Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. *Do not use for Loopers in AL & GA.			
Corn (Field, Popcorn & Seed)	Earworm (Ovicide/Larvicide)	3/4 - 1 1/2	21 - Ears 3 - Forage* 21 - Stover*	48 hrs.
	Armyworm Fall Armyworm European Corn Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids			
	Variegated Cutworm	1 1/2		
	Beet Armyworm			
	Do not apply more than 7.5 pints, of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop. *Corn forage is green actively growing plants that are harvested with the ears intact. The plants can be fed directly to animals or used to make silage. Corn stover are the parts of the plant that remain after removal of the grain at full plant maturity. These remaining stalks and leaves can be fed as roughage to animals. Timing of applications: Do not make more than two applications to corn prior to tassel push. Make 1 application when corn is at 1-2 leaf stage for control of early season pests; make a second application, if needed, 5-7 days later.			

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<b>Corn</b> <b>(Sweet)</b>	Earworm--Whorl as needed Fall Armyworm* Armyworm* Earworm* (Ovicide/Larvicide) European Corn Borer - Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids* Variegated Cutworm Beet Armyworm*	1 - 1 1/2  <
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East of Rockies Only	<b>(Early Season)</b> Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10 days.	1 1/2		
East of Rockies Only	<b>(Late Season)</b> Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant (adult and nymphs) Up to 3 applications at 3-5 day intervals after desired boll load set on plants.	1 1/2 - 2 1/4		
Texas	Cotton Aphid	3/4 - 2		
West of Rockies only	<b>Larvicide for worms:</b> Bollworm Fall Armyworm Tobacco Budworm Lygus Bugs Beet Armyworm	1 1/2 - 2 1/4	15	72 hrs.
	Cotton Leafperforator	1 - 2 1/4		
	<b>For applications West of the Rockies, make applications on 3-5 day intervals after desired boll load set on plants.</b> <b>For all applications made to cotton in the United States:</b> Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. Do not graze or feed. Use may redden cotton. If excessive, stop or alternate with other insecticides.			
Cucumber	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm Variegated Cutworm	1 1/2 - 3	1 1/2 lb. -- 1 Over 1 1/2 pts. -- 3	48 hrs.
	Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop.			
Eggplant	Green Peach Aphid	3/4 - 3		
	Tomato Pinworm (Ground Application only)	1 1/2 - 3	5	48 hrs.
	Beet Armyworm Corn Earworm			

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	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Endive, Escarole	Beet Armyworm	1 1/2 - 3	10	48 hrs.
	Do not apply more than .15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Garlic	Beet Armyworm	1 1/2**	7	48 hrs.
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop. **Add a wetting agent to improve coverage.			
Grapefruit CA, AZ & HI only	Thrips Fruit-tree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1 1/2 - 3	1	72 hrs.
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
Horseradish Ground application only	Aphids Thrips	1 1/2	65	48 hrs.
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
Leafy Green Vegetables: Beet (tops), Dandelions, Kale, Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1 1/2 - 3	10	48 hrs.
	Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. *Do not use for Cabbage Loopers in AL & GA.			
Lemon CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1 1/2 - 3	1	72 hrs.
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
Lentils	Western Yellowstriped Armyworm	1 1/2 - 3	21	48 hrs.
	Do not apply more than 3 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
Lettuce (Head and Leaf varieties)	Alfalfa Looper	3/4 - 3	3/4 - 1 1/2 pts. -- 7 Over 1 1/2 lb. -- 10	48 hrs.
	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1 1/2 - 3		
	Variegated Cutworm	1 1/2		
	<b>Lettuce (head varieties)</b> Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop; minimum interval between treatments is 2 days.			
	<b>Lettuce (leaf varieties)</b> Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop; minimum interval between treatments is 2 days.			



<b>Melons</b> Including: Cantaloupe, Casaba, Santa Claus melon, Crenshaw melon, Honeydew melon, Honey balls, Persian melon, Golden Pershaw melon, Mango melon, Pineapple melon, Snake melon, Watermelon	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pts. -- 1 Over 1 1/2 pts. -- 3	48 hrs.
	Variegated Cutworm	1 1/2		
	Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop.			
<b>Mint</b> (Peppermint, Spearmint)	Variegated Cutworm	3	14	48 hrs.
	Alfalfa Looper			
	Flea Beetles	2 1/4 - 3		
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Nectarine</b> CA & AZ only	Thrips	1 1/2 - 3	1	72 hrs.
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 3 applications per crop.			
<b>Onions</b> (Green & Dry Bulb)	Beet Armyworm	1 1/2 - 3**		
	Thrips****			
	Variegated Cutworm	3**	7 - Green & Dry Bulb Onions	48 hrs.
	Black Cutworm			

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**Onions, green**

Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 5 days.

**Onions, dry bulb**

Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum treatment interval between treatments is 5 days.

**\*Chemigation:** ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation to control thrips. Begin applications before thrips populations reach 3-5 thrips per plant. For best results, use the highest rate of ROTAM METHOMYL 29LV INSECTICIDE and a wetting agent. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.

**\*\*Add a wetting agent to improve coverage.**

**(\*\*\*)Drip Chemigation:** ROTAM METHOMYL 29LV INSECTICIDE may be applied via drip irrigation systems in ID, NV, OR, UT, and WA. ROTAM METHOMYL 29LV INSECTICIDE controls thrips at the rate of 3 pints of product per acre of plant bed applied thru drip irrigation systems. The rate of ROTAM METHOMYL 29LV INSECTICIDE is listed as a broadcast rate. For drip METHOMYL 29LV INSECTICIDE irrigation rates of ROTAM to be applied per 1,000 feet, see the table at the end of this section. Treatments should begin before populations of thrips reach 3-5 thrips per plant. Acidify the injection solution containing ROTAM METHOMYL 29LV INSECTICIDE to a pH of 5 or less. Once thrips populations reach an average of 10 thrips per plant or higher, it is very difficult to achieve satisfactory control with any insecticide program. Make sequential applications at 7- to 10-day intervals. Consider use of products with an alternate mode of action as part of your thrips control program. Do not apply more than 12 pints (3.6 lbs. a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to dry bulb onions. Do not apply more than 18 pints (5.4 lbs. a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to green onions. Make the last application of ROTAM METHOMYL 29LV INSECTICIDE at least 7 days before harvest.

**Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Drip Chemigation**

Bed Spacing	Linear Ft. of Bed to Equal one Acre	Rotam Methomyl 29LV Insecticide Pt./A rate per 1,000 Row Feet
36 inches	14,520 ft.	3.3 fl. oz.
48 inches	10,890 ft.	4.4 fl. oz.
60 inches	8,712 ft.	5.5 fl. oz.
72 inches	7,260 ft.	6.6 fl. oz.

**Oranges**  
CA, AZ & HI only

Thrips  
Western Tussock Moth  
Orange Tortrix  
Fruit-tree Leafroller  
Beet Armyworm  
Citrus Cutworm

1 1/2 - 3

1

72 hrs.

Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.

**Peaches**

Cat-facing Insects (Plant Bugs and Stink Bugs) - Begin at petal fall and continue in cover sprays at 7- to 10-day intervals.  
Oriental Fruit Moth\* - Begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use.  
Green Peach Aphid

3 pts.  
(or 3/4 lb. per 100  
gals. up to 400 gals.  
per acre)

4

4 days

	Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop. *Oriental Fruit Moth (Ground Application Only).			
Peanuts	Corn Earworm*	3/4 - 3	21	48 hrs.
	Potato Leafhopper			
	Fall Armyworm			
	Beet Armyworm	1 1/4 - 3		
	Green Cloverworm	1 1/2 - 3		
	Velvetbean Caterpillar			
	Cabbage Looper			
	Soybean Looper**			
	Thrips			
Granulate Cutworm				
Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. Do not feed treated vines. *ROTAM METHOMYL 29LV INSECTICIDE has ovicidal and larvicidal control on corn earworm. **Soybean Looper is difficult to control. Do not apply to worms greater than 1/2" long. Use higher rate for severe infestations.				
Pears Northeast only	Green Fruitworm	1 1/2 - 3*	7	48 hrs.
	Oblique banded Leafroller			
Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop. * Apply in a minimum of 50 gallons of water per acre.				
Peas (succulent) Including: Pigeon peas, Chick peas, Garbanzo beans, Dwarf peas, Garden peas, Green peas, English Peas, Field peas, Edible pod peas	Alfalfa Looper	1 1/2 - 3	1 - Peas 5 - Forage 14 - Hay	48 hrs.
	Cabbage Looper*			
	Pea Aphid			
	Beet Armyworm	3/4 - 3		
	Saltmarsh Caterpillar			
Variegated Cutworm				
Alfalfa Caterpillar	3/4 - 3			
Armyworm				
Green Cloverworm				
Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop; minimum interval between treatments is 3 days. *Do not use for Cabbage Loopers in AL & GA. <b>Chemigation:</b> ROTAM METHOMYL 29LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, and WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5- to-7 day intervals or until worm populations are brought below threshold. Do not apply more than 9 pints (2.7 lbs. a.i.) of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to succulent peas.				
Pecans	Aphids	1 1/2 - 3	30	48 hrs.
Southeast only	Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 7 applications per crop.			

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<b>Peppers</b> Including: Bell, Hot, Pimentos, Sweet	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1 1/2 - 3	3	48 hrs.
	Variegated Cutworm	3/4 - 1 1/2		
	European Corn Borer	3		
	Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
<b>Pomegranates</b>	Omnivorous Leafroller	3	14	48 hrs.
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
<b>Potato</b>	Tuberworm*	1 1/2 - 3	6	48 hrs.
	Loopers			
	Aphids			
	Beet Armyworm Leafhoppers Fall Armyworm	1 1/2		
	Variegated Cutworm			
	Flea Beetles			
Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. <b>Chemigation:</b> ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information. *Repeat applications of ROTAM METHOMYL 29LV INSECTICIDE on a 5-7 day schedule, or longer as needed, to control tuber worm populations. An application schedule of effective insecticides with different modes of action may be needed to keep foliar feeding larval populations as low as possible prior to harvest to reduce the risk of larval damage to the tubers. Failure to adequately control tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage.				
<b>Sorghum</b> Including: Sudangrass (Except Sweet Sorghum)	Sorghum Webworm	1 1/2 *	14**	48 hrs.
	Sorghum Midge - Apply when 50% bloom and 3-5 days later if needed.	3/4 - 1 1/2*		
	Fall Armyworm (Budworm)			
	Beet Armyworm Corn Earworm Armyworm			
	Do not apply more than 3 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop. *Minimum of 10 gallons per acre by ground or 2 gallons per acre by air. **Do not apply within 14 days of feeding forage or cutting for hay.			



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Soybeans	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm - <b>Light to Moderate infestations</b>	2/5 - 3/4 (See Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs.	
	Corn Earworm - <b>Moderate to severe infestations</b>	3/4 - 1 1/2			
	Soybean Aphid	1/2 - 1			
	Beet Armyworm Saltmarsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper - <b>Light to Moderate infestations</b>	3/4 - 1			
	Silver Spotted Skipper - <b>Moderate to severe infestations</b>	1 - 1 1/2			
	Do not apply more than 4.5 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 3 applications per crop.				
Spinach	Alfalfa Loopers Cabbage Looper Beet Armyworm Fall Armyworm	1 1/2 - 3	7	48 hrs.	
	Variegated Cutworm	1 1/2			
	Do not apply when minimum daily temp, is 32°F, or lower. Do not apply to seedlings less than 3" diameter. Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.				
Sugar Beet	Beet Webworm Flea Beetles Carrion Beetles Beet Armyworm* Aphids* Western Yellowstriped Armyworm*	3/4 - 3	30 - Tops 21 - Roots	48 hrs.	
	Variegated Cutworm	1 1/2			
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. *Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation to control beet armyworm, aphids and western yellowstriped armyworm. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.				

<b>Summer Squash*</b> Including: Crookneck squash, Straightneck squash, Scallop squash, Vegetable marrow, Spaghetti squash, Hyotan, Cucuzza, Hechima, Chinese okra, Bitter melon, Balsam pear, Balsam apple, Chinese Cucumber	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pts. -- 1 day Over 1 1/2 pts. -- 3 days	48 hrs.
Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop. *Fruit of the Gourd (Cucurbitaceae) family that are consumed when immature, 100% of the fruit is edible cooked or raw, once picked cannot be stored, has a soft rind which is easily penetrated, and if seeds were harvested they would not germinate.				
<b>Tangelo, Tangerine</b> CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1 1/2 - 3	1	72 hrs.
Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.				
<b>Tobacco</b> (Except shade)	Flea Beetle Hornworm	3/4 - 1 1/2	5 - Flue cured 14 - Air or fire cured	48 hrs.
	Loopers Aphids Tobacco Budworm Fall Armyworm	1 1/2		
Do not apply more than 7.5 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop.				
<b>Tomato</b> (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1 1/2 - 3	1	48 hrs.
	Variegated Cutworm	1 1/2		

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	Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 16 applications per crop. *For tomatillos do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop.			
<b>Turf</b> (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	3 (1.1 fl. oz. per 1,000 sq. ft.)		48 hrs.
	Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Do not graze or feed.			
<b>Wheat</b> (States of Idaho, Oregon, and Washington only)	Armyworms Cereal Leaf Beetle* Aphids**	3/4 - 1 1/2	7	48 hrs.
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. <b>Chemigation:</b> ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information. <b>*Cereal leaf beetle:</b> ROTAM METHOMYL 29LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California. <b>**Aphids:</b> For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not subject to temperatures below 32°F. Store product in original container only. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

**Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container.** Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**All Refillable Containers: Refillable container. Refilling Container:** Refill this container with ROTAM METHOMYL 29LV INSECTICIDE containing methomyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. **Disposing of Container:** Do not reuse this container for any other purpose other than refilling (see proceeding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not transport if container is damaged or leaking.

**In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.**



#### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam Agrochemical Company Limited or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam Agrochemical Company Limited and Seller harmless for any claims relating to such factors.

Rotam Agrochemical Company Limited warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam Agrochemical Company Limited, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the extent consistent with applicable law, Rotam Agrochemical Company Limited or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM AGROCHEMICAL COMPANY LIMITED OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Rotam Agrochemical Company Limited and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam Agrochemical Company Limited.

**Manufactured For [By]:**  
Rotam Agrochemical Co., Ltd.  
26/F E-Trade Plaza  
24 Lee Chung Street  
Chaiwan, Hong Kong

## **RESTRICTED USE PESTICIDE**

**Due to high Acute Toxicity to Humans**

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

## **Supplemental Labeling**

## **Green and Dry Bulb Onions**

### **ROTAM METHOMYL 29LV INSECTICIDE**

**EPA Reg. No. 83100-27**

**FOR USE ON GREEN AND DRY BULB ONIONS VIA DRIP IRRIGATION IN  
THE STATES OF IDAHO, NEVADA, OREGON, UTAH, AND WASHINGTON**

This Supplemental Labeling expires on [3 years from date of acceptance stamp on full label] and must not be distributed or used after that date.

#### **DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

#### **IMPORTANT**

**BEFORE USING METHOMYL 29LV INSECTICIDE, READ AND FOLLOW ALL APPLICABLE DIRECTIONS;  
RESTRICTIONS; AND PRECAUTIONS ON THE EPA - REGISTERED LABEL.**

This bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

#### **Application Information, Rates and Timing**

ROTAM METHOMYL 29LV INSECTICIDE controls thrips in green and dry bulb onions at the rate of 3 pints of product per acre of plant bed applied through drip irrigation systems. The rate of ROTAM METHOMYL 29LV INSECTICIDE is listed as a broadcast rate. For drip irrigation rates of ROTAM METHOMYL 29LV INSECTICIDE to be applied per 1,000 feet, see the table at the end of this section. Treatments should begin before populations of thrips reach 3-5 thrips per plant. Acidify the injection solution containing ROTAM METHOMYL 29 LV INSECTICIDE to a pH of 5 or less. Once thrips populations reach an average of 10 thrips per plant or higher, it is very difficult to achieve satisfactory control with any insecticide program.

Make sequential applications at 7 to 10 day intervals. Consider use of products with an alternate mode of action as part of your thrips control program. Do not apply more than 12 pints (3.6 lbs. a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to dry bulb onions. Do not apply more than 18 pints (5.4 lbs. a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to green onions. Make the last application of ROTAM METHOMYL 29LV INSECTICIDE at least 7 days before harvest.

#### **Manufactured For [By]:**

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24 Lee Chung Street  
Chaiwan, Hong Kong

#### Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Drip Chemigation

Bed Spacing	Linear Ft. of Bed to Equal One Acre	ROTAM METHOMYL 29LV INSECTICIDE pt./A rate per 1,000 Row Feet
36 inches	14,520 ft.	3.3 fl. oz.
48 inches	10,890 ft.	4.4 fl. oz.
60 inches	8,712 ft.	5.5 fl. oz.
72 inches	7,260 ft.	6.6 fl. oz.

#### Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Drip Chemigation Systems

##### Types of Irrigation Systems

ROTAM METHOMYL 29LV INSECTICIDE may be applied through drip irrigation systems for control of thrips in green and dry bulb onions. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build-up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in supplemental, SLN or the main product label.

##### Drip Guidance

1. Tape placement is critical. All products applied via drip irrigation must be deposited in the root zone. Place the tape either under each row or within each bed at the minimum depth that allows planting. The goal is to have the tape within or adjacent to the root zone and buried no more than 2 inches deep.
2. Optimum emitter spacing is 6 inches or less. The maximum emitter spacing must not exceed 12 inches. Emitters must be free of debris and deliver consistent amounts of water. Best results are seen when the same amount of ROTAM METHOMYL 29LV INSECTICIDE comes out of each emitter.
3. Adjust the irrigation cycle so that the water reaches the entire root zone without being pushed beyond the root zone.
4. The minimum injection time that will result in uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE throughout the field is the time it takes water to move from the injection point to the most distant emitter. Extending the injection time to twice the minimum will improve uniformity of the application. Also applications made with lower delivery volumes of water will improve uniformity.
5. When the drip tape is located between two single or double rows of onions, begin injection of ROTAM METHOMYL 29LV INSECTICIDE as soon as the system is up to pressure and continue through the first half to two-thirds of the irrigation cycle. The purpose is to ensure that the ROTAM METHOMYL 29LV INSECTICIDE is pushed all the way to the root zone of the outer row and not left in the area around the emitter.
6. Applications should be made before pests reach thresholds.
7. Drip chemigation works best when fields are relatively flat.
8. The tape flow rate should be matched to the soil type, crop, and climate. Too much flow can result in puddling and excessive time at soil saturation. Consult the tape manufacturer for more information.

##### Preparation

A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight.

##### Injection Into Chemigation Systems

Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. The injection solution containing ROTAM METHOMYL 29LV INSECTICIDE should be injected during the middle one-third of the irrigation cycle.

##### Uniform Water Distribution



The irrigation system used for application of ROTAM METHOMYL 29LV INSECTICIDE must provide for uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE treated water. Nonuniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

#### **Equipment calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 29LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

#### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 29LV INSECTICIDE is in the irrigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### **Posting of Areas to be Treated**

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the



words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### **Operation**

Start the water pump and let the system achieve the desired pressure and flow before starting the injector. Start the injector and calibrate the injection system. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Do not apply when system connections or fittings leak or when emitters do not provide uniform distribution.

#### **Cleaning the System**

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. ROTAM METHOMYL 29LV INSECTICIDE should not be applied at the same time that a drip/irrigation line clean out product is being used as performance may be reduced. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### **IMPORTANT**

**BEFORE USING ROTAM METHOMYL 29LV INSECTICIDE, READ AND CAREFULLY NOTE THE CAUTIONARY STATEMENTS AND OTHER PROCEDURAL INFORMATION APPEARING ON THE EPA REGISTERED LABEL OR ON OTHER SUPPLEMENTAL LABELS.**

This bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using ROTAM METHOMYL 29LV INSECTICIDE. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the limitation of Warranty and Liability on the Section 3 Federal product label.

## **RESTRICTED USE PESTICIDE**

**Due to high Acute Toxicity to Humans**

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

## **Supplemental Labeling**

**Succulent Peas  
Succulent Beans  
Dry Beans**

## **ROTAM METHOMYL 29LV INSECTICIDE**

**EPA Reg. No. 83100-27**

**FOR USE ON DRY AND SUCCULENT BEANS AND SUCCULENT PEAS VIA OVERHEAD  
SPRINKLER IRRIGATION IN THE STATES OF IDAHO, MONTANA, NEVADA, OREGON, UTAH,  
AND WASHINGTON**

This Supplemental Labeling expires on [3 years from date of acceptance stamp on full label] and must not be distributed or used after that date.

### **DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

### **IMPORTANT**

**BEFORE USING ROTAM METHOMYL 29LV INSECTICIDE, READ AND FOLLOW ALL APPLICABLE DIRECTIONS;  
RESTRICTIONS; AND PRECAUTIONS ON THE EPA - REGISTERED LABEL.**

This, bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

### **Application Information, Rates and Timing**

ROTAM METHOMYL 29LV INSECTICIDE controls beet armyworm, yellowstriped armyworm, western yellowstriped armyworm, saltmarsh caterpillar, aphids, variegated cutworm and loopers in succulent and dry beans and armyworm, beet armyworm, alfalfa looper, cabbage looper, pea aphid, saltmarsh caterpillar, variegated cutworm, alfalfa caterpillar and, green cloverworm in succulent peas at the rate of 3 pints of product per acre applied through overhead sprinkler irrigation systems. Apply ROTAM METHOMYL 29LV INSECTICIDE in 0.1 to 0.2 inches of water per acre.

### **Manufactured For [By]:**

Rotam Agrochemical Co., Ltd.  
26/F E-Trade Plaza

24 Lee Chung Street  
Chaiwan, Hong Kong

Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs. a.i.) ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to dry and succulent beans. Do not apply more than 9 pints (2.7 lbs. a.i.) of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to succulent peas.

Observe the following pre-harvest intervals following the last application of ROTAM METHOMYL 29LV INSECTICIDE: Succulent beans and bean vines - 3 days, succulent bean hay - 7 days; Dry beans, dry bean vines and hay - 14 days to cutting after the last application; Succulent peas - 1 day, succulent pea forage - 5 days, and succulent pea hay 14 days.

#### **Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Overhead Sprinkler Chemigation Systems.**

##### **Types of Irrigation Systems**

ROTAM METHOMYL 29LV INSECTICIDE may be applied through overhead sprinkler irrigation systems for control of the listed insects in dry and succulent beans and in succulent peas. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build-up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems.

##### **Preparation**

A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH 5-7).

##### **Injection Into Chemigation Systems**

Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water.

##### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 29LV INSECTICIDE must provide for uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE treated water. Nonuniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

##### **Equipment calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 29LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

##### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 29LV INSECTICIDE is in the irrigation water.



### Required System Safety Devices

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

### Posting of Areas to be Treated

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

### Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.



**Cleaning the System**

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using ROTAM METHOMYL 29LV INSECTICIDE. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the limitation of Warranty and Liability on the Section 3 Federal product label.

## **RESTRICTED USE PESTICIDE**

**Due to high Acute Toxicity to Humans**

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

## **Supplemental Labeling**

## **Sweet Corn**

### **ROTAM METHOMYL 29LV INSECTICIDE**

**EPA Reg. No. 83100-27**

#### **FOR USE ON SWEET CORN VIA OVERHEAD SPRINKLER IRRIGATION IN THE STATES OF COLORADO AND NEW MEXICO**

This Supplemental Labeling expires on [3 years from date of acceptance stamp on full label] and must not be distributed or used after that date.

#### **DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

#### **IMPORTANT**

**BEFORE USING ROTAM METHOMYL 29LV INSECTICIDE, READ AND FOLLOW ALL APPLICABLE DIRECTIONS; RESTRICTIONS; AND PRECAUTIONS ON THE EPA - REGISTERED LABEL.**

This bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

#### **Application Information, Rates and Timing**

ROTAM METHOMYL 29LV INSECTICIDE controls armyworm, fall armyworm, beet armyworm, earworm and aphids in sweet corn at the rate of 1 1/2 pints of product per acre applied through overhead sprinkler irrigation systems. Apply ROTAM METHOMYL 29LV INSECTICIDE in 0.1 to 0.2 inches of water per acre.

Use of a wetting agent may improve performance. Make sequential applications at 1 day intervals or until insect populations are brought below threshold. Do not apply more than 21 pints (6.3 lbs. a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to sweet corn. Make the last application of ROTAM METHOMYL 29LV INSECTICIDE at least 0 days for ears, 3 days for forage, and 21 days for stover before harvest.

#### **Manufactured For [By]:**

Rotam Agrochemical Co., Ltd.  
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Chaiwan, Hong Kong

## **Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Overhead Sprinkler Chemigation Systems.**

### **Types of Irrigation Systems**

ROTAM METHOMYL 29LV INSECTICIDE may be applied through overhead sprinkler irrigation systems for control of armyworm, fall armyworm, beet armyworm, earworm and aphids in sweet corn. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build-up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems.

### **Preparation**

A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in Chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH 5-7).

### **Injection Into Chemigation Systems**

Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water.

### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 29LV INSECTICIDE must provide for uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE treated water. Nonuniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the Chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

### **Equipment calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 29LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

### **Monitoring of Chemigation Applications**

A person knowledgeable of the Chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the Chemigation system when ROTAM METHOMYL 29LV INSECTICIDE is in the irrigation water.

### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### **Posting of Areas to be Treated**

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### **Operation**

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads, and system safety devices be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### **Cleaning the System**

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using ROTAM METHOMYL 29LV INSECTICIDE. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the limitation of Warranty and Liability on the Section 3 Federal product label.



• **Federal eRulemaking Portal:** <http://www.regulations.gov>. Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute.

• **Mail:** OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW., Washington, DC 20460-0001.

• **Hand Delivery:** To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at <http://www.epa.gov/dockets/contacts.html>. Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at <http://www.epa.gov/dockets>.

**FOR FURTHER INFORMATION CONTACT:** Tom Myers, Pesticide Re-Evaluation Division (7508P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460-0001; telephone number: (703) 308-8589; email address: [myers.tom@epa.gov](mailto:myers.tom@epa.gov).

#### SUPPLEMENTARY INFORMATION:

##### I. General Information

###### A. Does this action apply to me?

This action is directed to the public in general, and may be of interest to a wide range of stakeholders including environmental, human health, and

agricultural advocates; the chemical industry; pesticide users; and members of the public interested in the sale, distribution, or use of pesticides. Since others also may be interested, the Agency has not attempted to describe all the specific entities that may be affected by this action.

###### B. What should I consider as I prepare my comments for EPA?

1. **Submitting CBI.** Do not submit this information to EPA through [www.regulations.gov](http://www.regulations.gov) or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. **Tips for preparing your comments.** When preparing and submitting your comments, see the commenting tips at <http://www.epa.gov/dockets/comments.html>.

##### II. Background on the Receipt of Requests To Amend Registrations to Delete Uses

This notice announces receipt by EPA of requests from registrants to delete certain uses of methomyl product registrations. Methomyl is a broad-spectrum carbamate insecticide registered for use on a wide range of field crops, vegetables, fruits, and turf. In letters to EPA, the registrants have requested EPA to amend their methomyl product labels to delete certain uses of their pesticide product registrations identified in Table 1 of Unit III. Specifically, the registrants have submitted letters to EPA to voluntarily amend their methomyl product registrations to delete the use of methomyl in or on barley, oats, and rye. This action on the registrant's requests will terminate the last methomyl pesticide products registered in the United States for these uses.

##### III. What action is the Agency taking?

This notice announces receipt by EPA of requests from registrants to delete certain uses of methomyl product registrations. The affected products and the registrants making the requests are identified in Tables 1 and 2 of this unit.

Unless a request is withdrawn by the registrant or if the Agency determines that there are substantive comments that warrant further review of this request, EPA intends to issue an order amending the affected registrations.

TABLE 1—METHOMYL PRODUCT REGISTRATIONS WITH PENDING REQUESTS FOR AMENDMENT

Registration No.	Product name	Company	Uses to be deleted
352-342	Dupont Lannate SP Insecticide	Dupont	Barley, Oats, Rye.
352-361	Dupont Methomyl Composition	Dupont	Barley, Oats, Rye.
352-366	Dupont Methomyl Technical	Dupont	Barley, Oats, Rye.
352-384	Dupont Lannate LV Insecticide	Dupont	Barley, Oats, Rye.
400-597	Annihilate LV	MacDermid Agricultural Solutions	Barley, Oats, Rye.
400-598	Annihilate SP	MacDermid Agricultural Solutions	Barley, Oats, Rye.
70552-2	Methomyl Technical	Sinon Corporation	Barley, Oats, Rye.
81598-9	Rotam Methomyl Technical	Rotam Limited	Barley, Oats, Rye.
82557-2	Methomyl 29% SL Insecticide	Sinon USA Inc.	Barley, Oats, Rye.
82557-3	Methomyl 90% SP	Sinon USA Inc.	Barley, Oats, Rye.
83100-27	Rotam Methomyl 29 LV Insecticide	Rotam Agrochemical Company, Ltd	Barley, Oats, Rye.
83100-28	Rotam Methomyl 90 SP Insecticide	Rotam Agrochemical Company, Ltd	Barley, Oats, Rye.

Table 2 of this unit includes the names and addresses of record for the

registrants of the products listed in sequence by EPA company number.

This corresponds to EPA registration numbers in Table 1 of this unit.

TABLE 2—REGISTRANTS REQUESTING VOLUNTARY AMENDMENTS

EPA Company No.	Company name and address
352	E. I. Du Pont de Nemours and Company, 1007 Market Street, Wilmington, DE 19898-0001.
400	MacDermid Agricultural Solutions, Inc., c/o Chemtura Corporation, 199 Benson Road, Middlebury, CT 06749.
70552	Sinon Corporation, c/o Biologic, Inc., 115 Obtuse Hill Road, Brookfield, CT 06804.
81598	Rotam Limited, c/o Wagner Regulatory Associates, Inc., P.O. Box 640, 7217 Lancaster Pike, Suite A, Hockessin, DE 19707.
82557	Sinon USA Inc., c/o Biologic, Inc., 115 Obtuse Hill Road, Brookfield, CT 06804.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

**Methomyl (090301): Risk Mitigation Decision for Risks Due to Drinking Water Concerns**

**Summary**

This document presents the mitigation measures that methomyl technical and end user registrants Chemtura Corporation, E.I. DuPont de Nemours and Company (DuPont), Glades Formulating Corporation, Rotam Limited, and Sinon Corporation, have voluntarily agreed to implement in order to mitigate estimated dietary risk due to drinking water exposure. To ensure timely implementation of the changes to several crops regarding number of applications and maximum seasonal rate, EPA is taking steps to make sure that the new use restrictions appear on all methomyl product labels by the end of 2014.

The mitigation measures will cancel the use of methomyl on barley, oat, and rye and restrict its use on wheat to Idaho, Oregon, and Washington. For celery, head lettuce, and peppers the number of applications will be reduced by 20% and the seasonal maximum rate will be reduced by 12% to 20%. For corn, language will be added to labels that will change the timing of applications such that only two applications can occur prior to tassel push, at the 1-2 leaf stage, and applications will no longer be able to occur on bare soil. Additionally, the number of applications for leaf lettuce, field corn, popcorn, and seed corn will be reduced 25% to 50%. While Florida and California were the areas of greatest concern for risks to drinking water, the registrants have agreed to implement the mitigation nationwide.

While the risk assessment phase of registration review for methomyl is only just beginning, this effort to mitigate a chemical's risks early in the registration review process is consistent with the Agency's approach to registration review. Where risks are identified early in the process and opportunities for early mitigation exist, the Agency will pursue those opportunities as they arise, rather than waiting for completion of a chemical's registration review in order to mitigate risks.

**Background**

Methomyl is an N-methyl carbamate insecticide currently registered for use on a wide variety of sites including field, vegetable, orchard crops, and on turf (sod farms only). Methomyl is generally a restricted use pesticide [based on percent active ingredient (a.i.)]. There are currently no homeowner uses. However, certain low percentage a.i. formulations are not designated as restricted use and can be used around livestock quarters, commercial premises, and refuse containers. Methomyl was first registered in the United States in 1968. A Reregistration

Eligibility Decision (RED) was completed in 1998<sup>1</sup>. Methomyl is the primary metabolite of thiodicarb, which is also an insecticide.

Methomyl is currently undergoing registration review, EPA's periodic reevaluation of all registered pesticides to ensure that they continue to meet the statutory standard of no unreasonable adverse effects. The risk assessment phase of registration review for methomyl begins in mid-2014 with the release for public comment of the draft risk assessments anticipated in the summer of 2015.

### **Results of the Agency's Dietary Risk Assessment**

The Agency's dietary risk assessment included drinking water exposure estimates that used the most refined regional percent cropped area (PCA) factors consistent with recommendations from the Scientific Advisory Panel's<sup>2</sup> peer review. This resulted in a number of methomyl uses which caused the human health dietary assessment to indicate potential risk of concern. The approach used for evaluating and characterizing the drinking water exposure concerns for methomyl are consistent with the approach used during the mitigation of oxamyl drinking water risks of concern.<sup>3</sup> This stands in contrast to the assessment provided by DuPont<sup>4</sup>, which explored crop-by-crop and region-by-region PCA factors. While DuPont's analysis looked at PCAs on a finer scale using the available data, their approach is not currently an Agency approved approach nor has their approach been informed by an SAP review, and thus, could not be used quantitatively in the Agency's assessment.

The Agency looked at its drinking water simulations in the context of recent methomyl usage data in an effort to further characterize the risk. See Appendix A for "*Methomyl – Summary of Agency Drinking Water Assessment and Discussion of Risk Management Options*", which lays out the risk management analysis and options for resolution. In general, methomyl's use, regardless of crop, appears to occur predominantly in the southeast (primarily Florida and Georgia), the three west coast states (California, Washington, and Oregon), the southwest (Texas and Arizona), and the northeast (New York, Pennsylvania, and New Jersey). More specifically, geographically on a state-by-state basis, methomyl's use in Florida and California significantly exceeds its use in any other state. In fact, methomyl's use in those two states exceeds its use in all the other states combined.

The usage data also suggested that the application rate, retreatment intervals, and number of applications could be reduced below that on currently registered product labels in order to reduce drinking water exposure. In addition, the usage data indicated that methomyl has very

<sup>1</sup> Available at <http://www.epa.gov/oppsrrd1/REDs/0028red.pdf>.

<sup>2</sup> U.S. EPA (1999). Scientific Advisory Panel Report - Sets of Scientific Issues Being Considered by the Environmental Protection Agency Regarding: Session III - Use of Watershed-derived Percent Crop Areas as a Refinement Tool in FQPA Drinking Water Exposure Assessments for Tolerance Reassessment. Available at <http://www.epa.gov/scipoly/sap/meetings/1999/may/final.pdf>.

<sup>3</sup> U.S. EPA (2011) Oxamyl Mitigation of Dietary (Drinking Water) Risks of Concern for Certain Use Sites. Available at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPP-2010-0028-0021>.

<sup>4</sup> N. Snyder, A. Klemens, K. Wright, S. Zelonis. Sponsored by E. I. du Pont de Nemours and Company. Tier 2 Dietary and Drinking Water Risk Assessment for Methomyl Under Current Use Guidance. June 7, 2012. MRID 48859101.



little use on several major row crops. Removal of these crops from the methomyl label will reduce the estimated drinking water concentrations in the nationwide risk assessment, and could open up room in the risk cup for methomyl and the n-methyl carbamate cumulative assessment.

### Registrant Agreed-to Mitigation

Based upon the registrant agreed to mitigation, identified in Tables 1 and 2 below, which cancels some uses and reduces the number of applications and the seasonal maximum rate for some crops, drinking water concerns have been sufficiently mitigated at this time. While Florida and California were identified as the areas where we were most concerned about drinking water risk because most of the methomyl use occurs in those two states, the registrants have agreed to implement the mitigation nationwide. See Appendix B for the Agency's complete analysis supporting the sufficiency of the mitigation to address drinking water concerns in Florida and California.

**Table 1. Agreed-to Mitigation for Methomyl on Row Crops**

Labeled Crop	Mitigation	
Barley	Cancel Use	
Oats	Cancel Use	
Rye	Cancel Use	
Wheat	Cancel Use Except in ID, OR, and WA	
	Number of Applications	
	Current*	Proposed
Corn, Field	10	5
Corn, Pop	10	5
Corn, Seed	10	5
Corn, Sweet, Field, Pop, and Seed	Timing of applications: Do not make more than two applications to corn prior to tassel push. Make 1 application when corn is at 1-2 leaf stage for control of early season pests; make a second application, if needed, 5-7 days later.	

*Don't need this Reg. b/c low percentage of A+1. Maybe?*  
*Tom Meyers will call EPCD.*

**Table 2. Agreed-to Mitigation for Methomyl on Vegetables**

Crop	Number of Applications		Seasonal Maximum Rate (lbs a.i./Acre)	
	Current*	Proposed	Current*	Proposed
Celery	10	8	7.2	6.3
Head Lettuce	15	12	7.2	6.3
Leaf Lettuce	8	6	3.6	3.6
Peppers	10	8	4.5	3.6

\*Currently on labels.

### Conclusion

This document presents the mitigation measures being taken voluntarily by registrants in order to mitigate estimated dietary risk due to drinking water exposure from methomyl. The Agency believes that these reductions in the maximum seasonal label rates for methomyl

*Ask SSM*



mitigate our concerns about dietary risk due to drinking water exposure from methomyl. This and all other documents related to methomyl registration review are located at <http://www.regulations.gov> under docket number EPA-OPP-2010-0751.

*Richard P. Keigwin, Jr.*

Richard P. Keigwin, Jr.  
Director  
Pesticide Re-evaluation Division

*Table 1: Assessed Mitigation for Methomyl on Low Crop*

Crop	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Wheat	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Barley	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Oats	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Hay	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Alfalfa	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Other	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation

*Table 2: Assessed Mitigation for Methomyl on High Crop*

Crop	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Wheat	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Barley	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Oats	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Hay	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Alfalfa	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Other	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation

*Table 3: Assessed Mitigation for Methomyl on High Crop*

Crop	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Wheat	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Barley	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Oats	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Hay	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Alfalfa	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation
Other	Assessed Mitigation	Assessed Mitigation	Assessed Mitigation

# APPENDIX A



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

SENT VIA EMAIL

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

To: Patricia G. Devine, Product Registration Manager  
DuPont Crop Protection  
Re: Methomyl – Summary of Agency Drinking Water Assessment and Discussion of Risk  
Management Options  
Date: March 20, 2013

This document highlights results of EPA's dietary risk assessment for methomyl as it relates to specific crops and areas of the country. It is our effort to note the differences between DuPont's drinking water assessment and the Agency's assessment because these differences result in a number of dietary risk levels-of-concern exceedances in EPA's assessment. At the same time, from a risk management perspective, possible options for mitigating the risks are discussed.

## **Results of the Agency's Dietary Risk Assessment**

Our risk assessors evaluated the potential dietary risk of methomyl using PRZM/EXAMS to simulate drinking water exposure, and DEEM to combine exposure through residues on food with drinking water exposure. The team ran PRZM/EXAMS simulations for most methomyl crops using the representative standard scenario for a national assessment, as well as a number of additional regional assessments. In addition, drinking water exposure was calculated for a number of scenarios using the lowest regional percent crop treated (PCA) for regions east of the eastern divide and west of the western divide (0.13), and using the lowest regional PCA for mid-continent regions (0.35). These were considered lower-bound values to compare with the representative scenarios and PCAs shown in Table 1, below.

EPA's approach to the methomyl drinking water assessment uses the same inputs (rates, number of applications and retreatment intervals) as DuPont used in its assessment (June 7, 2012), but did not calculate crop and watershed-specific PCA factors. EPA's use of PCAs in its drinking water assessment is consistent with the approach discussed in the 1999 Scientific Advisory

Panel's report<sup>5</sup> on this subject. The PCAs shown in the table below are regional PCAs associated with the standard scenarios chosen to represent nationwide methomyl use allowed by its labels.

Due to the difference in how the regional PCAs are utilized in EPA's assessment, a number of crops exceed the level of concern for dietary risk although they passed in DuPont's assessment. As a rule of thumb, estimated drinking water concentrations above 10 ppb resulted in failure of the DEEM aggregate simulation. Of the example crops listed in Table 1, only apples and potatoes passed using the PCAs presented.

**Table 1**

Crop	States with highest methomyl use, descending order	Scenario*	Representative Scenario	
			Peak ppb & PCA Ground	Peak ppb & PCA Aerial
Lettuce	CA, AZ	CA lettuce STD	99.31 (0.61)	--
Onion	OR, WA, CA, ID, NY, TX, CO	GAOnion_WirrigSTD	39.80 (0.41)	38.89 (0.41)
Sweet Corn	FL, GA, CA, NY, PA, NJ, OH, MI, IL, WI	KS Corn STD	127.54 (0.87)	124.93 (0.87)
Tomatoes	CA, FL	FL tomato STD	37.50 (0.41)	36.82 (0.41)
Potatoes	WA, CA, OR, NY, PA, NC	ME potato STD	3.95 (0.13)	4.06 (0.13)
Peppers	FL, AZ, CA, NJ, GA, NC, OH	FL pepper STD	50.79 (0.41)	49.22 (0.41)
Cabbage	FL, NC, NY, TX, CA, CO, AR, MI	Brownsville TX	74.24 (0.69)	--
Apples	VA, MI, WV, PA, NY, OH, NC	PA apples STD V2	8.38 (0.34)	8.52 (0.34)
Alfalfa	CA, CO	ground TX alfalfaOP; aerial NC alfalfa OP	81.08 (0.69)	11.81 (0.41)
Beans (Snap, Bush, Pole, String)	FL, TX, GA, CA, PA, WI	MI beans STD	72.28 (0.81)	71.15 (0.81)
Peaches	NJ, AL, PA, MI, CA	GA Peaches STD	11.23 (0.41)	11.62 (0.41)
Celery	CA, MI	CA cole crop RLF v2	86.68 (0.61)	--

\*Where there is a ground and aerial peak ppb and PCA, unless indicated, the scenario is for both ground and aerial

The consideration of default regional PCAs represents the extent of refinement that could be done for the drinking water exposure assessment, given the wide variety of crops on methomyl labels and the fact that there are no geographical limitations for the use of methomyl. However, we have taken a closer look at where methomyl appears to actually be used (geographically and crop specific) based upon our use and usage information from the most recent available 5-year period. Upon this closer evaluation of methomyl's apparent geographical use and predominant crop specific use, there may be options for moving forward to mitigate the issues driving the failure of certain crops.

<sup>5</sup> U.S. EPA (1999). Scientific Advisory Panel Report - Sets of Scientific Issues Being Considered by the Environmental Protection Agency Regarding: Session III - Use of Watershed-derived Percent Crop Areas as a Refinement Tool in FQPA Drinking Water Exposure Assessments for Tolerance Reassessment. Available at <http://www.epa.gov/scipoly/sap/meetings/1999/may/final.pdf>.



In general, methomyl's use, regardless of crop, appears to occur predominantly in the southeast (primarily Florida and Georgia), the three west coast states (California, Washington, and Oregon), the southwest (Texas and Arizona), and the northeast (New York, Pennsylvania, and New Jersey). More specifically, geographically on a state-by-state basis, methomyl's use in California and Florida significantly exceeds its use in any other state. In fact, methomyl's use in those two states exceeds its use in all the other states combined.

In addition, the use of methomyl appears to be insignificant for major crops which account for much of the area in default PCA calculations. For instance, the average percent crop treated for spring and winter wheat for the last five years has been 0.0, according to our analysis. The same is true for both soybeans and field corn. Use records suggest that what use has occurred has not been in the same regions where the major methomyl use occurred on sweet corn and vegetables.

### Consideration of drinking water exposure in the context of methomyl usage data

Given the usage data described above, we undertook a "what-if" assessment along the lines of that performed for the oxamyl drinking water assessment, exploring which use/region combinations might pose the greatest risk of drinking water contamination. In this risk management exercise we looked at modeling runs that best approximated the areas of major use of methomyl, and applied combined PCA factors for crops on which methomyl has been used, most often those for vegetables and corn (to account for sweet corn). In the cases for which a nearby scenario was not available, we took the results of the national standard scenario and applied the appropriate PCAs for the major use region being evaluated. This exercise does not by itself change the risk assessment nor the status of the methomyl "risk cup." It does, however, clarify which uses most require mitigation for protection of drinking water, and where.

Table 2 indicates which uses failed both with the national representative standard scenario and regional default PCAs, and under the "what-if" scenarios using more representative scenarios and smaller PCA factors. In short, the main drinking water concerns which require resolution are the use of methomyl on sweet corn in Florida and Georgia, the use on vegetables (especially lettuce and brassicas) in California, and the use on onions in New York. The region-specific PCAs include EPA's recently released regional PCA adjustment factors<sup>6</sup> for vegetables along with regional PCAs for other crops for which there was reported methomyl use between 2007 and 2011.

Table 2

Crop	States	Scenario	PCA - Region Specific
Sweet Corn	FL, GA	FL sweet corn OP	0.16, 0.30
Lettuce (and spinach)	CA	CA lettuce STD	>0.29
Peppers	CA	FL pepper STD	>0.29

<sup>6</sup> Available at [http://www.epa.gov/oppefed1/models/water/pca\\_adjustment\\_dwa.html#\\_3\\_regional\\_group](http://www.epa.gov/oppefed1/models/water/pca_adjustment_dwa.html#_3_regional_group).



Cabbage	CA	CA cole crop RLF v2	>0.29
Celery	CA	CA cole crop RLF v2	>0.29
Onions	NY	GAOnion_WirrigSTD	Up to 0.41

## Options for Moving Forward

### *Sweet corn in Florida and Georgia*

Methomyl's major uses in Florida appear to be on vegetables and sweet corn, with no reported use on wheat, soybeans, citrus, or field corn. A Florida sweet corn scenario was run with the default regional PCA of 0.41, which resulted in residues that caused the human health aggregate assessment to fail. In looking at the regional vegetable PCA, the maximum is 0.07 and the maximum for corn is 0.09. If one were to conservatively combine these two maximum PCA factors, recognizing that the corn value may in part represent land cropped to field corn, the resulting drinking water concentration is near to that which would result in an acceptable dietary risk.

The major use of methomyl in Georgia is on sweet corn, with lesser amounts used on vegetables and cotton. According to 2007 Census of Agriculture maps, major cotton, vegetable and sweet corn growing areas coincide in the southwestern portion of the state. When considered with the additional reported use on watermelons and cantaloupe, the default regional PCA could be as high as 0.30, but in any case would be higher than that needed to result in acceptable dietary risk.

Methomyl usage data for sweet corn suggest that actual usage is significantly less than modeled by both the Agency and DuPont. Modeled concentrations for sweet corn were derived using an application rate of 0.45 lb/A applied 14 times with a 1-day application interval. Usage data indicate that the average application rate in Florida and Georgia was 0.3 lb/A, with an average of about 9 applications a year. It appears that there is room to reduce the rate, number of applications and perhaps application interval to reduce the potential for risk to drinking water.

### *Vegetables in California*

Lettuce: Lettuce would fail using the California lettuce scenario and the regional vegetable PCA of 0.29 alone, which does not account for reported use on sweet corn, cotton and citrus crops. The lettuce scenario was also used to represent use on spinach, which therefore also would fail in this "what-if" exercise.

Methomyl usage data for lettuce suggest that actual usage is significantly less than simulated by both the Agency and DuPont. Modeled concentrations for lettuce were derived using an application rate of 0.9 lb/A applied 6 times a year with a 2-day application interval. Usage data indicate that the average application rate in California was 0.8 lb/A, with an average of about 2 applications a year. It appears that there is room to reduce the number of applications and perhaps the interval to reduce the potential for risk to drinking water.

**Peppers:** Because there is not a standard scenario for California peppers, we considered the Florida pepper scenario deemed representative by EPA for this exercise. DEEM calculated exposure of 103% of the aPad for a PCA of 0.35 (one of the bounding assumptions explored as described above). Given the regional PCA of 0.29 for vegetables, and the use of methomyl on sweet corn, cotton and citrus in the same region of California, one cannot dismiss risk from peppers in this "what-if" exercise.

Methomyl usage data for peppers suggest that actual usage is significantly less than modeled by both the Agency and DuPont. Modeled concentrations were derived using an application rate for peppers of 0.9 lb/A applied 5 times a year with a 5-day application interval. Usage data indicate that the average application rate for peppers in California was 0.7 lb/A, with an average of about 2 applications a year. It appears that there is room to reduce the rate, number of applications and perhaps application interval to reduce the potential for risk to drinking water.

**Cabbage:** A California standard scenario was available for cabbage, and it resulted in higher peak concentrations than the scenario chosen as representative of the rest of the country. DEEM calculated exposure of 102% of the aPad for a lower-bound PCA of 0.13. California cabbage would therefore still fail with a regional vegetable PCA of 0.29, and more so if one considered use of sweet corn, cotton and citrus crops in the PCA.

Methomyl usage data for cabbage suggest that actual usage is significantly less than modeled by both the Agency and DuPont. Modeled concentrations were derived using an application rate for cabbage of 0.9 lb/A applied 8 times a year with a 2-day application interval. Usage data indicate that the average application rate in California for cabbage was 0.7 lb/A, with an average of about 2 applications a year. It appears that there is room to reduce the rate, number of applications and perhaps application interval to reduce the potential for risk to drinking water.

**Celery:** Use on celery was simulated using the same standard scenario as for cabbage, but with a different application interval. DEEM calculated exposure of 97% of the aPad for a lower-bound PCA of 0.13, and exceedance of the aPad from water alone using a PCA of 0.35. Given the regional PCA of 0.29 for vegetables, and the use of methomyl on sweet corn, cotton and citrus in the same region of California, one cannot dismiss risk from celery in this "what-if" exercise.

Methomyl usage data for celery suggest that actual usage is significantly less than modeled by both the Agency and DuPont. Modeled concentrations were derived using an application rate for celery of 0.9 lb/A applied 8 times a year with a 5-day application interval. Usage data indicate that the average application rate for celery in California was 0.7 lb/A, with an average of about 2 applications a year. It appears that there is room to reduce the rate, number of applications and perhaps application interval to reduce the potential for risk to drinking water.

#### *Onions in New York*

Usage data indicate that the second most important state for methomyl use on onions is New York. Onions and sweet corn seem to be grown in the same area, much of it in the Great Lakes region, and methomyl use on apples was reported for New York, as well. Drinking water concentrations derived using the representative standard scenario caused the dietary assessment

to fail whether considering a PCA of 0.41 or 0.35. Whether the vegetable and corn PCAs for Region 2 or Region 4 are considered for New York, one cannot dismiss the potential for dietary risk with this "what-if" scenario. However, while the usage data for onions indicates that the 0.9 lb/A rate modeled in the modeling is the actual average use rate for New York, the average of 3 applications per year is half the 6 applications simulated in the modeling.

#### **Do low-benefit uses need to be retained?**

As described above, a risk management exercise considering PCA factors without the inclusion of major row crops was only possible because our usage data indicate that methomyl is not used much on these crops. The average percent crop treated for wheat, soybeans and corn all were calculated to be 0.0 for the most recent 5-year period reviewed, suggesting that there is little benefit associated with these methomyl registrations. However, these crops do contribute greatly to the national and regional default PCAs used for the human health dietary risk assessment. We suggest that DuPont consider removing these registered uses from methomyl labels to provide room in the "risk cup" for the existing high-use crops, and perhaps the n-methyl carbamate cumulative assessment.

#### **Conclusion**

The Agency's dietary risk assessment included drinking water exposure estimates that used the most refined regional PCA factors that are permissible by the recommendations provided through SAP peer review. This results in a number of methomyl uses which cause the human health dietary assessment to indicate potential risk of concern. This stands in contrast to the assessment provided by DuPont, which explored crop-by-crop and region-by-region PCA factors that are not consistent with SAP recommendations.

The Agency looked at its drinking water simulations in the context of recent methomyl usage data as a risk management exercise. Identification of where methomyl was used most, and on which crops, allowed us to perform a "what-if" evaluation consistent with that done for oxamyl. Through this we identified which crop-location combinations would still result in estimated dietary risk due to drinking water exposure.

The usage data used in this exercise also suggests that the application rate, retreatment intervals, and number of applications for these crops could be reduced below that modeled in order to reduce drinking water exposure. In addition, the usage data indicate that methomyl has very little use on several major row crops. Removal of these crops from the methomyl label would go a long way in reducing the estimated drinking water concentrations in the nationwide risk assessment, and could open space in the risk cup for methomyl and the n-methyl carbamate cumulative assessment.



## **APPENDIX B**

### **Analysis Indicating Sufficiency of Mitigation to Address Drinking Water Risk Concerns in Florida and California**

#### **Florida**

The main concern for possible methomyl in drinking water in Florida is associated with use on vegetables. Although it can be used on orchard crops, usage data available to the Agency does not indicate use in Florida.

In its response to the Agency's request, DuPont provided information on the co-occurrence of other potential methomyl crops in areas of Florida where vegetables are grown. These maps indicate that sweet corn is grown more in Georgia and up the southeastern seaboard than in Florida. USDA Agricultural Census maps from 2007 indicate that vegetables and sweet corn are both grown in Palm Beach County (most likely the Everglades Agricultural Area. However, as indicated by the Palm Beach County Water Utilities Department's 2012 report, "Palm Beach County Water Utilities Department's drinking water is drawn from wells extending approximately 150 feet underground."

Furthermore, the City of West Palm Beach, in their 2012 report, indicated that "the City of West Palm Beach gets its water from rainfall captured and stored in a part of the Everglades Ecosystem known as the Grassy Waters Preserve. This system feeds and sustains Lake Mangonia and Clear Lake. In past years the City has, at times, been able to supplement its water supply from Lake Okeechobee." It states further that "in 2012 the Florida Department of Environmental Protection performed a Source Water Assessment on our system. These assessments were conducted to provide information on any potential sources of contamination in the vicinity of our wells and source water intake. A search of the data sources indicated no potential sources of contamination within the assessment area for our system."

The DuPont response also provided information on potential co-occurrence of vegetables with alfalfa and pasture grass. This memo did not indicate co-occurrence with alfalfa, which is consistent with usage data available to the Agency. There is co-occurrence of pastureland in watersheds in which vegetables are grown, but the predominant pasture grass grown in Florida is bahia grass, and methomyl is only labeled for use on bermudagrass.

The Agency believes that, to the extent that surface water is used as a drinking water source in Florida, that potential drinking water exposure to methomyl is best characterized by the use on vegetables. The proposed reduction in the maximum label rates for methomyl use on vegetables is sufficient to mitigate concerns for drinking water in Florida for methomyl itself. The potential cumulative exposure to methomyl and other n-methyl carbamates is currently being reassessed.

#### **California**

When the Agency first identified use on vegetables in California and Florida as the most likely causes of significant drinking water exposure to methomyl, it was based on available methomyl



usage data and the use of a 0.29 percent cropped area (PCA) factor for vegetables in California. DuPont responded by pointing out that the most appropriate PCA for vegetables in Region 18 (which includes California) is 0.10, and the Agency agreed. DuPont calculated that, when this PCA was used and DEEM run considering "eating occasion exposure," the use on vegetables resulted in acceptable aggregate exposure.

While the PCA for vegetables is 0.10, it is important to consider other crops on which methomyl is registered. The orchard crop group could be important in California, except that 1) the PCA for orchards includes use on grapes, for which methomyl is no longer registered, and 2) the assessment for the various orchard crops passed the dietary screen. In addition, available data indicate that a small amount of methomyl is used on orchard crops in California, and only on a small percentage of the crops grown. Use on cotton also is much less significant than on vegetables, with a very small percentage of the crop in California treated.

The Agency acknowledged that the corrected PCA for vegetables improved the picture for drinking water exposure to methomyl in California, but requested additional information on potential co-occurrence with areas in which alfalfa is grown, even though the assessment for alfalfa itself passed the dietary screen. DuPont provided information on the co-occurrence of alfalfa and vegetables in California watersheds, which indicated that the percent cropped to alfalfa in the great majority of watersheds in California was below 5%, with a maximum of 9.6%. The highest PCAs for alfalfa do not correspond with the maximum PCAs for vegetables. Furthermore, while there is a significant amount of methomyl used on alfalfa in California, the percent of the crop treated is only around 10%.

Therefore, while DuPont indicated that the dietary assessment for vegetables would pass if one applies the vegetable PCA of 0.10 to the drinking water exposure values for vegetables, the PCA should perhaps be adjusted slightly higher for use on alfalfa. However, it is important to acknowledge that the screening drinking water exposure values were derived using the highest application rates, maximum number of applications and shortest retreatment intervals allowed on the labels. Usage data for California indicate that less methomyl is applied in practice, and the percent of each crop treated is significantly less than the 100% assumed in the screen. The proposed reduction in the maximum label rates for methomyl use on vegetables is sufficient to mitigate concerns for drinking water in California for methomyl itself. The potential cumulative exposure to methomyl and other n-methyl carbamates is currently being reassessed.

# Certification with Respect to Label Integrity

version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

PROPOSED LABEL		
EPA Registration #	Date Submitted to EPA	Electronic file name
83100-27	1/16/2015	83100.27.20150116.V1.clean 83100.27.20150116.V1.highlighted

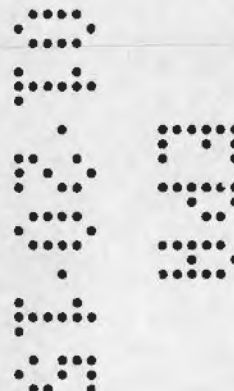
I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

Cheryl Wagner  
Signature

1/16/2015  
Date

Cheryl Wagner  
Name (typed)

Agent for Rotam Agrochemical Co. Ltd.  
Title





United States  
**Environmental Protection Agency**  
 Washington, DC 20460  
**Formulator's Exemption Statement**  
 (40 CFR 152.85)

Applicant's Name and Address Rotam Agrochemical Company, Ltd. c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707	EPA File Symbol/Registration Number 83100-27
	Product Name Rotam Methomyl 29 LV Insecticide
	Date of Confidential Statement of Formula (EPA Form 8570-4) 02/25/2011

As an authorized representative of the applicant for registration of the product identified above, I certify that:

(1) This product contains the following active ingredient(s):

Methomyl

(2) Of these, each active ingredient listed in paragraph (4) is present solely as the result of the use of that active ingredient in the manufacturing, formulation or repackaging another product which contains that active ingredient which is registered under FIFRA Section 3, is purchased by us from another person and meets the requirements of 40 CFR section 158.50(e)(2) or (3).

(3) Indicate by checking (A) or (B) below which paragraph applies:

☒ (A) An accurate Confidential Statement of Formula (EPA FORM 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).

OR

☐ (B) The Confidential Statement of Formula (CSF)(EPA Form 8570-4) referenced above and on file with the EPA is complete, current, an accurate and contains the information required on the current CSF.

(4) The following active ingredients in this product qualify for the formulator's exemption.

Source		
Active Ingredient	Product Name	Registration Number
Methomyl	[REDACTED]	[REDACTED]
Signature <i>Cheryl R. Wagner</i>	Name and Title Cheryl Wagner - Agent for Rotam	Date 01/16/2015

EPA Form 8570-27 (Rev. 06-2004)

Copy 1 - EPA  
 Copy 2 - Applicant copy

\*Product Source Information May be Entitled to  
 Confidential Treatment\*



March 10, 2014

U.S. Environmental Protection Agency  
Office of Pesticide Programs (7505P)  
One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202

Re: Designation of Agent

Dear Sir or Madam:

This letter serves as notification that ROTAM AGROCHEMICAL COMPANY LIMITED (Firm Number: 83100) has appointed Wagner Regulatory Associates, Inc. (WRA, Inc.) to serve as its Agent regarding all pesticide registration matters the company may have with the U.S. Environmental Protection Agency (EPA).

ROTAM AGROCHEMICAL COMPANY LIMITED hereby authorizes EPA to contact any of the following individuals within WRA, Inc. on behalf of the company:

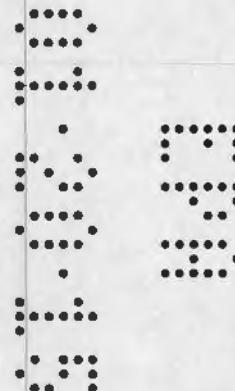
James M. Wagner  
Managing Director  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7290  
Fax: (302) 635-7295  
Email: james@wagnerreg.com

Cheryl R. Wagner  
President  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7289  
Fax: (302) 635-7295  
Email: Cheryl@wagnerreg.com

Kt Woodall  
Regulatory Associate  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7283  
Fax: (302) 635-7295  
Email: Ktwoodall@wagnerreg.com

Carrie Nolan  
Regulatory Associate  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7281  
Fax: (302) 635-7295  
Email: Carrie@wagnerreg.com

Barbarette Young-Henry  
Regulatory Associate  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7279  
Fax: (302) 635-7295  
Email: Barbarette@wagnerreg.com





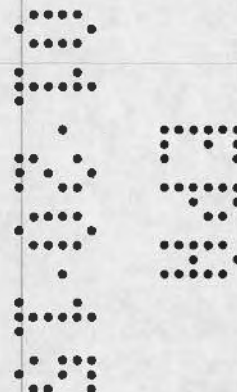
Authorization to contact these staff members within WRA, Inc remains in effect until such time that **ROTAM AGROCHEMICAL COMPANY LIMITED** provides notification in writing of any changes.

Respectfully submitted,



Yifan Wu  
Senior Vice President  
Technical Development Department  
Tel: 86-512-5790 3076  
Fax: 86-512-5771 8692  
Email: yifanwu@rotam.com

cc: WRA, Inc.



January 16, 2015

U.S. Environmental Protection Agency  
Office of Pesticide Programs  
Pesticide Re-evaluation Division  
ATTN: Mr. Tom Myers  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460



**WRA**

Wagner Regulatory Associates, Inc.  
P.O. Box 640  
7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

Dear Mr. Myers,

**Subject: Voluntary Cancellation of Certain Uses**

**Rotam Methomyl 29 LV Insecticide, EPA Reg. No. 83100-27**  
**Amendment Deleting Uses on Barley, Oats, and Rye**

Rotam Agrochemical Co. Ltd. respectfully submits the enclosed amended label to delete directions for use of methomyl 29 LV Insecticide on the crops barley, oats and rye. Enclosed are the following for the Agency's review:

- Letter from Rotam Agrochemical Co. Ltd. appointing Wagner Regulatory Associates, Inc. as its agent
- Application for Pesticide Registration Amendment (8570-1)
- Amended label (1 highlighted copy, 1 clean copy and CD)
- Certification with Respect to Label Integrity
- Formulator's Exemption (8570-27)

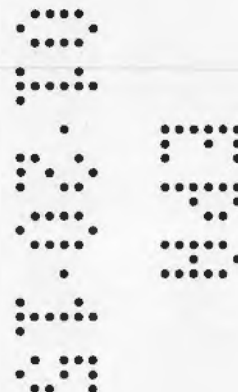
If you have any questions, please feel free to contact me via email at [cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com) or telephone at (302) 635-7289.

Sincerely,

*Cheryl R. Wagner*

Cheryl Wagner  
Regulatory Agent

cc: Reubin Baris, Registration Division





United States  
Environmental Protection Agency  
Washington, DC 20460

Registration

OPP Identifier Number

X

Amendment

Other

**Application for Pesticide - Section I**

1. Company/Product Number 83100-27	2. EPA Product Manager Reuben Baris	3. Proposed Classification  <input checked="" type="checkbox"/> None      Restricted
4. Company/Product (Name) Rotam Agrochemical Co. Ltd. /Rotam Methomyl 29 LV Insecticide	PM# 7	
5. Name and Address of Applicant (Include Zip Code)  Rotam Agrochemical Co. Ltd. c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to:

**Section - II**

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

Amendment to remove directions for use on barley, oats, and rye.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	
	If "Yes"      No. per Unit Packaging wgt.      container	If "Yes"      No. per Package wgt.      container		<input checked="" type="checkbox"/> Plastic	
* Certification must be submitted				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) HDPE lined bags	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1 gallon, 2.5 gallons		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other ___adhesive backed label _____			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Cheryl Wagner		Title Agent for Rotam Limited		Telephone No. (Include Area Code) (302) 635-7289	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.				6. Date Application Received (Stamped) 	
2. Signature 		3. Title Agent for Rotam Agrochemical Co. Ltd.			
4. Typed Name Cheryl Wagner		5. Date 1/16/2015			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

January 21, 2015

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

MS. CARRIE NOLAN  
WAGNER REGULATORY ASSOCIATES, INC.  
ROTAM AGROCHEMICAL COMPANY, LTD.  
PO Box 640  
HOCKESSIN, DE 19707-

PRODUCT NAME: ROTAM METHOMYL 29LV INSECTICIDE  
COMPANY NAME: ROTAM AGROCHEMICAL COMPANY, LTD.  
OPP IDENTIFICATION NUMBER:  
EPA FILE SYMBOL: 83100-27  
EPA RECEIPT DATE: 01/20/15

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Registration Division, Risk Management Team 11, at (703) 305-6701.

Sincerely,

A handwritten signature in black ink, appearing to be "S. J. [unclear]".

Front End Processing Staff  
Information Services Branch  
Information Technology & Resources Management Division



S: 963069

Milestone Email:

Regulatory Type: Product Registration - Section 3

Resubmission: ☐ Yes ☒ No

Application Type: Amendment

Fee For Service: ☐ Yes ☒ No

Billable: ☐ Yes ☒ No

Company: 83100 ROTAM AGROCHEMICAL COMPANY, LTD.

V

Print Letter

Enter More Information

Tracking

Risk Manager: Registration Division, Risk Management Team 11

Product #: 83100-27 Product Name: ROTAM METHOMYL 29LV INSECTICIDE

Override#:

Me Too Section3: 352-384

Me Too Product Name: DUPONT LANNATE LV INSECTICIDE

Application Date: 16-Jan-2015

OPP Rec'd Date: 20-Jan-2015

Front End Date: 20-Jan-2015

Risk Manager Send Date: 21-Jan-2015

FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Fast Track: ☐

New Ingredient: ☐

Receipt Description:

AMENDMENT

Receipt Content

Paper Label

Electronic Label

View/Edit

Form A: ☐

Signature Date:

Form B: ☐

New Ingredient

Request Date:

New Ingredient

Received Date:

Signature Date:

January 12<sup>th</sup>, 2015



**WRA**

Wagner Regulatory Associates, Inc.  
P.O. Box 640  
7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

Document Processing Desk  
ATTN: Richard Gebken, PM Team 10  
Registration Division (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, Virginia 22202-4501

Dear Mr. Gebken,

**Subject: Final Print Label - Distributor only**  
-Rotam Methomyl 29LV Insecticide, EPA Reg. No. 83100-27  
-Rotam Methomyl 90SP Insecticide, EPA Reg. No. 83100-28

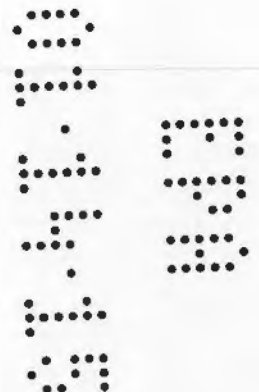
Wagner Regulatory Associates, Inc., as agent for Rotam Agrochemical Co. Ltd. respectfully submits the enclosed final print label for the subject product. This product is only being marketed under the supplemental distributor label and is not being packaged and/or distributed under the Rotam Agrochemical Co. Ltd. number.

If you have any questions about this submission please contact the undersigned at 302-635-7289 or [cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com).

Regards,

Cheryl Wagner  
Agent for Rotam Agrochemical Co. Ltd.

Enclosures



March 10, 2014

U.S. Environmental Protection Agency  
Office of Pesticide Programs (7505P)  
One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202

Re: Designation of Agent

Dear Sir or Madam:

This letter serves as notification that **ROTAM AGROCHEMICAL COMPANY LIMITED** (Firm Number: 83100) has appointed Wagner Regulatory Associates, Inc. (WRA, Inc.) to serve as its Agent regarding all pesticide registration matters the company may have with the U.S. Environmental Protection Agency (EPA).

**ROTAM AGROCHEMICAL COMPANY LIMITED** hereby authorizes EPA to contact any of the following individuals within WRA, Inc. on behalf of the company:

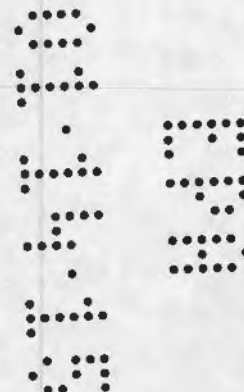
James M. Wagner  
Managing Director  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7290  
Fax: (302) 635-7295  
Email: james@wagnerreg.com

Cheryl R. Wagner  
President  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7289  
Fax: (302) 635-7295  
Email: Cheryl@wagnerreg.com

Kt Woodall  
Regulatory Associate  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7283  
Fax: (302) 635-7295  
Email: Ktwoodall@wagnerreg.com

Carrie Nolan  
Regulatory Associate  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7281  
Fax: (302) 635-7295  
Email: Carrie@wagnerreg.com

Barbarette Young-Henry  
Regulatory Associate  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707  
Telephone: (302) 635-7279  
Fax: (302) 635-7295  
Email: Barbarette@wagnerreg.com



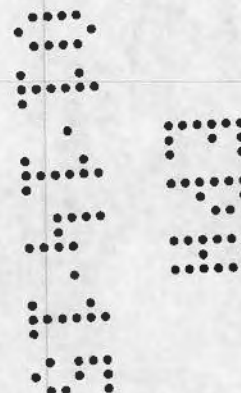
Authorization to contact these staff members within WRA, Inc remains in effect until such time that **ROTAM AGROCHEMICAL COMPANY LIMITED** provides notification in writing of any changes.

Respectfully submitted,



Yifan Wu  
Senior Vice President  
Technical Development Department  
Tel: 86-512-5790 3076  
Fax: 86-512-5771 8692  
Email: yifanwu@rotam.com

cc: WRA, Inc.







United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration

OPP Identifier Number

Amendment

☒ Other

### Application for Pesticide - Section I

1. Company/Product Number 83100-27	2. EPA Product Manager Richard Gebken	3. Proposed Classification  <input checked="" type="checkbox"/> None      Restricted
4. Company/Product (Name) Rotam Agrochemical Co. Ltd. / <b>Rotam Methomyl 29LV Insecticide</b>	PM# Product Manager 10	
5. Name and Address of Applicant (Include Zip Code)  Rotam Agrochemical Co. Ltd. c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707  <input type="checkbox"/> Check if this is a new address	6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. Product Name:	

### Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Label use directions are similar to EPA Reg. No.

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

### Section - III

1. <b>Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes"      No. per Unit Packaging wgt.      container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes"      No. per Package wgt      container	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) HDPE lined bags
* <b>Certification must be submitted</b>			
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____	

### Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Cheryl Wagner	Title Agent for Rotam Agrochemical Co. Ltd.	Telephone No. (Include Area Code) (302) 635-7289	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received 
2. Signature 	3. Title Agent for Rotam Agrochemical Co. Ltd.		
4. Typed Name Cheryl Wagner	5. Date January 12 <sup>th</sup> , 2015		



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration

OPP Identifier Number

Amendment

☒ Other

### Application for Pesticide - Section I

1. Company/Product Number

83100-28

2. EPA Product Manager

Richard Gebken

3. Proposed Classification

☒ None ☐ Restricted

4. Company/Product (Name)

Rotam Agrochemical Co. Ltd. /

Rotam Methomyl 90SP Insecticide

PM#

Product Manager 10

5. Name and Address of Applicant (Include Zip Code)

Rotam Agrochemical Co. Ltd.  
 c/o Wagner Regulatory Associates, Inc.  
 P.O. Box 640  
 Hockessin, DE 19707

☐ Check if this is a new address

6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to:

EPA Reg. No.

Product Name:

### Section - II

☐ Amendment - Explain below.

☒ Final printed labels

☐ Resubmission in response to Agency letter dated \_\_\_\_\_

☐ "Me Too" Application.

☐ Notification - Explain below.

☐ Label use directions are similar to EPA Reg. No.

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

### Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging

☐ Yes\*  
☒ No

Unit Packaging

☐ Yes  
☒ No

Water Soluble Packaging

☐ Yes  
☒ No

2. Type of Container

☐ Metal  
☒ Plastic

Metal

Plastic

Glass

Paper

Other (Specify) HDPE lined bags

\* **Certification must  
 be submitted**

If "Yes"

No. per

Unit Packaging wgt.

container

If "Yes"

No. per

Package wgt.

container

3. Location of Net Contents Information

☒ Label

☐ Container

4. Size(s) Retail Container

5. Location of Label Directions

☒ On Label

☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product

☐ Lithograph  
☒ Paper glued  
☐ Stenciled

☐ Other \_\_\_\_\_

### Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name

Cheryl Wagner

Title

Agent for Rotam Agrochemical Co. Ltd.

Telephone No. (Include Area Code)

(302) 635-7289

#### Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

3. Title

Agent for Rotam Agrochemical Co. Ltd.

4. Typed Name

Cheryl Wagner

5. Date

January 12<sup>th</sup>, 2015

6. Date Application Received

(Stamped)



## RESTRICTED USE PESTICIDE

### DUE TO HIGH ACUTE TOXICITY TO HUMANS

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# NUDRIN<sup>TM</sup> LV

## INSECTICIDE

KEEP OUT OF REACH OF CHILDREN

**DANGER POISON**

**PELIGRO**



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

#### Water Soluble Liquid

Contains 2.4 lbs. active ingredient per gallon

#### Active Ingredient

Methomyl (S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate) ..... 29%

Other Ingredients ..... 71%

**TOTAL** ..... 100%

Contains Methanol

Packaged in Non-refillable Plastic Containers

**Net Contents: 2.5 GALLONS**

**Non-refillable Plastic Container**

**EPA Reg. No.: 83100-27-83979**

**EPA Est. No.: 5905-GA-01**

Manufactured for:

**ROTAM NORTH AMERICA, INC.**

4900 Koger Blvd., Suite #140

Greensboro, NC 27407

1-866-927-6826

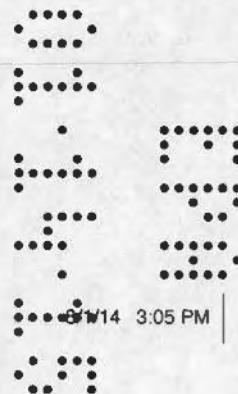


Refer to inside for additional precautionary information including Personal Protective Equipment (PPE),  
User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions for Use

NUDLV-01-A11232011-revA09012013-2.5G

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## FIRST AID

### (N-Methyl Carbamate Insecticide)

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.**

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

**POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to NUDRIN LV INSECTICIDE alone. However, for exposure to combinations of NUDRIN LV INSECTICIDE and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### KEEP OUT OF REACH OF CHILDREN

**DANGER**  
**PELIGRO**



**POISON**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Contains Methanol. Methanol may cause blindness. Corrosive. Causes irreversible eye damage. May be fatal if swallowed or if inhaled. Harmful if absorbed through skin. Do not get in eyes or on clothing. Do not breathe spray mist. Avoid contact with skin.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as natural rubber or other materials in EPA category C.
- Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## ENGINEERING CONTROL STATEMENTS

**Human flaggers must be in enclosed cabs.**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

**Pilots must not assist in the mixing and loading operations.**

## USER SAFETY RECOMMENDATIONS

### USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

## ENVIRONMENTAL HAZARDS

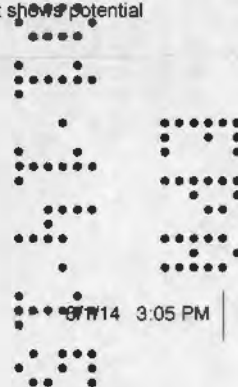
This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean highwater mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

## PHYSICAL AND CHEMICAL HAZARDS

**Combustible.** Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation. The product shows potential explosive properties when heated to elevated temperatures.



## DIRECTIONS FOR USE

### Restricted Use Pesticide

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- Shoes plus socks.
- Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Do not formulate this product into other end-use products.

NUDRIN LV INSECTICIDE is a water soluble liquid that is applied by foliar application to control many important insect pests. NUDRIN LV INSECTICIDE is mixed with water for application.

Chemigation: Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Pilots must not assist in the mixing and loading operations.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Hand-held equipment is prohibited for applications to crops. This product must be applied to crops only with mechanical ground, overhead sprinkler chemigation or aerial application equipment.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

### RESISTANCE MANAGEMENT

For resistance management, NUDRIN LV INSECTICIDE is a group 1A insecticide. Repeated and exclusive use of NUDRIN LV INSECTICIDE or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.irac-online.org>.



## INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

## SCOUTING

Monitor insect populations to determine whether or not there is a need for application of NUDRIN LV INSECTICIDE based on locally determined economic thresholds. More than one treatment of NUDRIN LV INSECTICIDE may be required to control a population of pests.

## BENEFICIAL ARTHROPODS

NUDRIN LV INSECTICIDE at rates of 2/5 to 3/4 pint per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

## SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying NUDRIN LV INSECTICIDE. Fill spray tank 1/4 to 1/2 full of water. Add NUDRIN LV INSECTICIDE directly to spray tank. Mix thoroughly. Use mechanical or hydraulic means; do not use air agitation. Spray mix should not be stored overnight in spray tank.

**Compatibility** — Since formulations may be changed and new ones introduced, in this situation users can premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.) before applying the product. Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use NUDRIN LV INSECTICIDE with Bordeaux mixture (copper sulfate and hydrated lime), Du Ter triphenyltin hydroxide, lime sulfur, Rayplex iron nor in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

**Tank Mix Sequence** — Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

1. Water soluble bags.
2. Water dispersible granules.
3. Wettable powders.
4. Water based suspension concentrates.
5. NUDRIN LV INSECTICIDE and other water soluble concentrates.
6. Oil based suspension concentrates.
7. Emulsifiable concentrates.
8. Adjuvants, surfactants, oils, soluble fertilizers, and drift retardants. Follow local practice and manufacturer's recommendation.

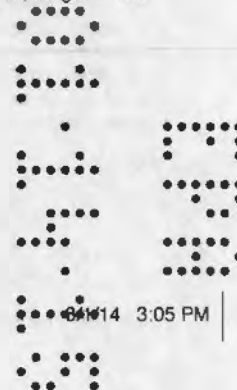
## APPLICATION

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of NUDRIN LV INSECTICIDE should be applied, as needed, to keep pest populations within threshold limits. On most crops, NUDRIN LV INSECTICIDE should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since NUDRIN LV INSECTICIDE is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for peaches and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.





NUDRIN LV INSECTICIDE is recommended for use as a low volume aerial spray 0.53 gpa (2L) for cotton\* and soybeans\* and 1 gpa for the crops listed below providing the following conditions are met:

- equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area,
- local regulations do not prohibit low-volume aerial sprays,
- use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa	Celery	Peas (succulent)
Anise	Collards	Peppermint
Asparagus	Corn	Peppers
Barley	Cotton	Potato
Beans	Cucumber	Rye
Broccoli	Lettuce	Soybean
Brussels sprouts	Melons	Spinach
Cabbage	Mint	Sugar beet
Carrot	Oats	Summer Squash
Cauliflower	Peanuts	Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

\* Not Registered for aerial application in a diluted volume of less than 1 gal in CA.

## SPRAY TANK CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

## CHEMIGATION

### Overhead Sprinkler Chemigation

**Instructions for the Use of NUDRIN LV INSECTICIDE on Alfalfa, Barley, Dry Beans, Oats, Green and Dry Bulb Onions, Potatoes, Rye, Succulent Beans, Succulent Peas, Sugar Beets, Sweet Corn, and Wheat Using Overhead Sprinkler Chemigation**

Overhead sprinkler chemigation is allowed for use in alfalfa, barley, succulent and dry beans, oats, onions, succulent peas, potatoes, rye, sugar beets, sweet corn and wheat. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of NUDRIN LV INSECTICIDE as high as possible in the application. Apply NUDRIN LV INSECTICIDE in 0.1 to 0.2 inches of water per acre.

NUDRIN LV INSECTICIDE is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of NUDRIN LV INSECTICIDE should take place when the insects are active and most likely to come into direct contact with the application.

### Types of Overhead Sprinkler Irrigation Systems:

NUDRIN LV INSECTICIDE may be applied through overhead sprinkler irrigation systems for control of various pests. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply NUDRIN LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this main product label.

### Directions for Overhead Sprinkler Chemigation:

#### Preparation

A pesticide tank is used for the application of NUDRIN LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of NUDRIN LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of NUDRIN LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7).

### Injection Into Overhead Sprinkler Chemigation Systems

Inject the proper amount of the NUDRIN LV INSECTICIDE solution into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water.

**Operation:** Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply NUDRIN LV INSECTICIDE in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

Nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices must be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

**Cleaning the System:** Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

## DRIP CHEMIGATION

### Instructions for the Use of NUDRIN LV INSECTICIDE on green and dry bulb onions Using Drip Chemigation

Drip chemigation is allowed in green and dry bulb onions. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

#### Types of Drip Irrigation Systems

The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply NUDRIN LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this main product label.

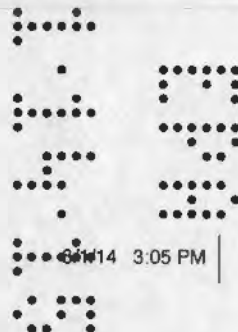
#### Directions for Drip Chemigation

##### Drip Guidance:

1. Tape placement is critical. All products applied via drip irrigation must be deposited in the root zone. Place the tape either under each row or within each bed at the minimum depth that allows planting. The goal is to have the tape within or adjacent to the root zone and buried no more than 2 inches deep.
2. Optimum emitter spacing is 6 inches or less. The maximum emitter spacing must not exceed 12 inches. Emitters must be free of debris and deliver consistent amounts of water. Best results are seen when the same amount of NUDRIN LV INSECTICIDE comes out of each emitter.
3. Adjust the irrigation cycle so that the water reaches the entire root zone without being pushed beyond the root zone.
4. The minimum injection time that will result in uniform distribution of NUDRIN LV INSECTICIDE throughout the field is the time it takes water to move from the injection point to the most distant emitter. Extending the injection time to twice the minimum will improve uniformity of the application. Also applications made with lower delivery volumes of water will improve uniformity.
5. When the drip tape is located between two single or double rows of onions, begin injection of NUDRIN LV INSECTICIDE as soon as the system is up to pressure and continue through the first half to two-thirds of the irrigation cycle. The purpose is to ensure that the NUDRIN LV INSECTICIDE is pushed all the way to the root zone of the outer row and not left in the area around the emitter.
6. Applications should be made before pests reach thresholds.
7. Drip chemigation works best when fields are relatively flat.
8. The tape flow rate should be matched to the soil type, crop and climate. Too much flow can result in puddling and excessive time at soil saturation. Consult the tape manufacturer for more information.

**Preparation:** A pesticide tank is used for the application of NUDRIN LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of NUDRIN LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of NUDRIN LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight.

**Injection Into Drip Chemigation Systems:** Inject the proper amount of the NUDRIN LV INSECTICIDE solution into the irrigation water flow. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. The injection solution containing NUDRIN LV INSECTICIDE should be injected during the middle one-third of the irrigation cycle.



**Operation:** Start the water pump and let the system achieve the desired pressure and flow before starting the injector. Start the injector and calibrate the injection system. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Do not apply when system connections or fittings leak or when emitters do not provide uniform distribution.

**Cleaning the System:** Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. NUDRIN LV INSECTICIDE should not be applied at the same time that a drip/irrigation line clean out product is being used as performance may be reduced. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

## **Additional Chemigation Directions (both overhead and drip)**

### **Uniform Water Distribution**

The irrigation system used for application of NUDRIN LV INSECTICIDE must provide for uniform distribution of NUDRIN LV INSECTICIDE treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

### **Equipment calibration**

Calibrate the irrigation system and injector before applying NUDRIN LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when NUDRIN LV INSECTICIDE is in the irrigation water.

### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

### **Posting of Areas to be Treated**

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.



All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER".

Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

## SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the [Aerial Drift Reduction Advisory Information](#).

## AERIAL DRIFT REDUCTION ADVISORY INFORMATION

### Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

### Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### Controlling Droplet Size - Aircraft

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
- **Boom Length** - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** - Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- **Swath Adjustment** - When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the fields, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

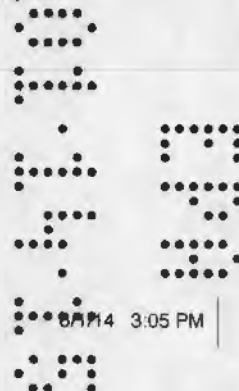
## BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

## WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. **AVOID GUSTY OR WINDLESS CONDITIONS.**

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.





## TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

## TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

## SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

## AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

## AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift.

*Adjust deflectors and aiming devices so that spray is only directed into the canopy.*

*Block off upward pointed nozzles when there is no overhanging canopy.*

*Use only enough air volume to penetrate the canopy and provide good coverage.*

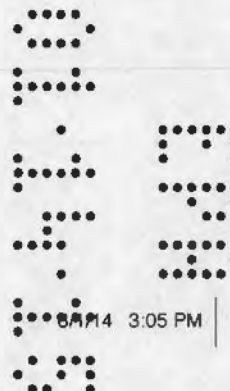
*Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.*

## CROP AND RATE TABLES

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Western Yellowstriped Armyworm Yellowstriped Armyworm	1 1/2 – 3	7 *	48 hrs
	Alfalfa Weevil Larvae	3		
	Variegated Cutworm	3/4 - 3		
	Do not apply to dormant or semi-dormant alfalfa when minimum daily temp. is 50° F. or lower. Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. Chemigation: NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  * Do not apply within 7 days of cutting or allowing livestock to graze.			
Anise (Fennel)	Cabbage Looper	3	7	48 hrs
	Beet Armyworm	1 1/2 - 3		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Apple Ground application only	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug	1 1/2 - 3 *	14	72 hrs
	Codling Moth (10-12 day spray intervals)			
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	3 *		
Do not use on Early Macintosh & Wealthy varieties Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop; minimum interval between treatments is 7 days. * Apply in a minimum of 50 gallons of water per acre.				

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Asparagus</b>	Beet Armyworm Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1 1/2 - 3	1	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
<b>Avocado</b>	Western Avocado Leafroller Omnivorous Looper	1 1/2 - 3	1	48 hrs
	Do not apply more than 3 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
<b>Barley</b>	Armyworms Cereal Leaf Beetle* Aphids**	3/4 - 1 1/2	7	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Chemigation: NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: NUDRIN LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California. **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when the aphid population is low (<10 adults per stem).			

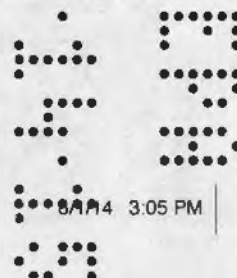
Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Beans (Succulent)</b> Including:  Kidney Lima Mung Navy Pinto Snap Wax Broad Fava Asparagus Blackeyed peas Cowpeas Chick peas Garbanzo beans Sweet lupine White sweet lupine White lupine Grain lupine	Leafhopper Mexican Bean Beetle	3/4 – 3	Succulent Beans - 3/4 - 1 1/2 pts. – 1, over 1 1/2 pts. – 3;  3 - Vines 7 - Hay	48 hrs
	Fall Armyworm Variegated Cutworm(**)	1 1/2		
	Beet Armyworm(**) Corn Earworm Saltmarsh Caterpillar(**) Yellowstriped Armyworm(**) Western Yellowstriped Armyworm(**) Lygus Bugs Thrips Aphids(**) Loopers(**)	1 1/2 - 3		
	European Corn Borer (Ovicide & Larvicide)-- Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals To control eggs and larvae	1 1/2-3		
	Spotted Cucumber Beetle	3/4 – 1 1/2		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. * Do not use for Loopers in AL & GA. (**)Chemigation: NUDRIN LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs a.i.) NUDRIN LV INSECTICIDE per acre per crop to succulent beans.			
<b>Beans (Dry)</b> (Same as Succulent Beans)	(Same as Succulent Beans)	(Same as Succulent Beans)	14 - Dry Beans * 14 - Vines * 14 - Hay *	48 hrs
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. Do not use for Loopers in AL & GA. *Do not apply within 14 days of cutting.  (**)Chemigation: NUDRIN LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs a.i.) NUDRIN LV INSECTICIDE per acre per crop to dry beans.			





Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Beets (Table)	Imported Cabbageworm	3/4 - 3	0 - roots 10 -tops	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1 1/2 - 3		
	Cucumber Beetle Variegated Cutworm	1 1/2		
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	3/4 - 3	7 - Forage * 3 - Dehydrated Hay **	48 hrs
	Do not apply more than 3 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. * Do not apply within 7 days of feeding forage or allowing livestock to graze. ** Do not apply within 3 days of cutting for hay.			
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1 1/2	3	48 hrs
	Cranberry Fruitworm* Cherry Fruitworm*	1 1/2 - 3		
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	3		
	Blueberry Maggot	3/4 - 1 1/2		
	Do not apply during bloom. Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. * For ground use only.			
Broccoli	Loopers Diamondback Moth	1 1/2 - 3**	3	48 hrs
	Imported Cabbageworm	3/4 - 3**		
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			
Brussels Sprouts	Loopers Imported Cabbageworm Diamondback Moth	1 1/2 - 3 **	3	48 hrs
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Cabbage	Loopers * Diamondback Moth Fall Armyworm	1 1/2 - 3 **	1	48 hrs
	Imported Cabbageworm	3/4 - 3 **		
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 24 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 15 applications per crop; minimum interval between treatments is 2 days. * Do not use for Loopers in AL & GA. ** Add a wetting agent to improve coverage.			
Carrot	Beet Armyworm Armyworms Aster Leafhopper	1 1/2 - 3	1	48 hrs
	Variegated Cutworm	3/4 – 1 1/2		
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Cauliflower	Imported Cabbageworm	3/4 – 3 **	3	48 hrs
	Loopers Diamondback Moth	1 1/2 – 3 **		
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 24 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			
Celery	Beet Armyworm Aster Leafhopper	1 1/2 – 3	7	48 hrs
	Loopers	3		
	Variegated Cutworm	1 1/2		
	Armyworms	3/4 - 3		
	Do not apply more than 24 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1 1/2 - 3	80	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
Chinese Cabbage	Loopers Beet Armyworm	1 1/2 - 3*	10	48 hrs
	Do not apply more than 24 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. * Minimum of 25 gallons water per acre by ground or 5 gallons by air.			



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Collards (Fresh market only)	Diamondback Moth Variegated Cutworm	1 1/2	10	48 hrs
	Imported Cabbageworm Beet Armyworm Loopers*	1 1/2 - 3		
	Do not apply when temp. is less than 50° F. Do not apply when crop is less than 10" tall. Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. * Do not use for Loopers in AL & GA.			
Corn (Field, Popcorn & Seed)	Earworm – (Ovicide/Larvicide) Armyworm Fall Armyworm European Corn Borer -Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids	3/4 – 1 1/2	21 - Ears 3 - Forage* 21 - Stover*	48 hrs
	Variegated Cutworm, Beet Armyworm	1 1/2		
	Do not apply more than 7.5 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. *Corn forage is green actively growing plants that are harvested with the ears intact. The plants can be fed directly to animals or used to make silage. Corn stover are the parts of the plant that remain after removal of the grain at full plant maturity. These remaining stalks and leaves can be fed as roughage to animals.			
Corn (Sweet)	Earworm--Whorl as needed	1 – 1 1/2	0 -Ears 3 - Forage 21 - Stover	48 hrs
	Fall Armyworm* Armyworm* Earworm*, (Ovicide/Larvicide) European Corn Borer -Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids*	3/4 – 1 1/2		
	Variegated Cutworm Beet Armyworm*	1 1/2		
	Certain hybrid varieties of sweet corn are susceptible to methomyl injury. Treat a small area to determine crop safety before full scale spraying. Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 28 applications per crop; minimum interval between treatments is 1 day.  *Chemigation: NUDRIN LV INSECTICIDE may be applied via overhead sprinkler in CO & NM at the rate of 1 1/2 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 1 day intervals or until insect populations are brought below threshold. Do not apply more than 21 pints (6.3 lbs a.i.) NUDRIN LV INSECTICIDE per crop to sweet corn. Make the last application of NUDRIN LV INSECTICIDE at least 0 days for ears, 3 days for forage, or 21 days for stover before harvest.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Cotton - All US</b>	Ovicide/Larvicide - Bollworm Tobacco Budworm (Initiate schedule when significant numbers of eggs are present. Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) Start treatment on low level population for suppression.	2/5 - 3/4 (see Insect Predator Section)	15	72 hrs
	Cotton Leafworm	3/4 - 1 1/2		
	Cotton Fleahopper (as needed)	2/5 - 3/4		
	Aphids, Thrips	3/4		
<b>East of Rockies only</b>	(Early Season) Bollworm Tobacco Budworm Beet Armyworm Cotton Leafperforator Fall Armyworm Lygus Bugs/Plant Bugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10 days.	1 1/2		
	(Late Season) Bollworm Tobacco Budworm Beet Armyworm Cotton Leafperforator Fall Armyworm Lygus Bugs/Plant Bugs (adult and nymphs) Up to 3 applications at 3-5 day intervals after desired boll load set on plants.	1 1/2 - 2 1/4		
<b>Texas</b>	Cotton Aphid	3/4 - 2		
<b>West of Rockies only</b>	Larvicide for worms: Bollworm Fall Armyworm Tobacco Budworm Lygus Bugs Beet Armyworm	1 1/2 - 2 1/4		
	Cotton Leafperforator	1 - 2 1/4		
<p>For applications West of the Rockies, make applications on 3-5 day intervals after desired boll load set on plants.</p> <p><b>For all applications made to cotton in the United States:</b> Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. Do not graze or feed. Use may redden cotton. If excessive, stop or alternate with other insecticides.</p>				



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Cucumber</b>	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pt. -- 1 Over 1 1/2 pt. - 3	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop.			
<b>Eggplant</b>	Green Peach Aphid	3/4 – 3	5	48 hrs
	Tomato Pinworm (Ground Application Only) Beet Armyworm Corn Earworm	1 1/2 - 3		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
<b>Endive, Escarole</b>	Beet Armyworm	1 1/2 - 3	10	48 hrs
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
<b>Garlic</b>	Beet Armyworm	1 1/2**	7	48 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop. ** Add a wetting agent to improve coverage.			
<b>Grapefruit</b> CA, AZ & HI only	Thrips Fruittree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Horseradish</b> (Ground application Only)	Aphids Thrips	1 1/2	65	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Leafy Green Vegetables:</b> Beet (tops) Dandelions, Kale, Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1 1/2 - 3	10	48 hrs
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. * Do not use for Cabbage Loopers in AL & GA.			
<b>Lemon</b> CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Lentils</b>	Western Yellowstriped Armyworm	1 1/2 - 3	21	48 hrs
	Do not apply more than 3 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
<b>Lettuce</b>  (Head and Leaf varieties)	Alfalfa Looper	3/4 - 3	3/4-1 1/2 pt. -- 7 over 1 1/2 pts. -- 10	48 hrs
	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1 1/2 - 3		
	Variegated Cutworm	1 1/2		
	<b>Lettuce (head varieties)</b> Do not apply more than 24 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 15 applications per crop; minimum interval between treatments is 2 days. <b>Lettuce (leaf varieties)</b> Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 2 days.			
<b>Melons</b> Including: Cantaloupe Casaba Santa Claus melon Crenshaw melon Honeydew melon Honey balls Persian melon Golden Pershaw melon Mango melon Pineapple melon Snake melon Watermelon	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pts. -- 1 day over 1 1/2 pts. -- 3 days	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Mint</b> (Peppermint, Spearmint)	Variegated Cutworm Alfalfa Looper	3	14	48 hrs
	Flea Beetles	2 1/4 - 3		
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Nectarine</b> CA & AZ only	Thrips	1 1/2 – 3	1	72 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 3 applications per crop.			
<b>Oats</b>	Armyworms Cereal Leaf Beetle* Aphids**	3/4 – 1 1/2	7	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Chemigation: NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: NUDRIN LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California. **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI														
Onions (Green & Dry Bulb)	Beet Armyworm	1 1/2 - 3**	7 - Green & Dry Bulb Onions	48 hrs														
	Thrips*(***) Variegated Cutworm Black Cutworm	3**																
	<p><b>Onions, green</b> Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 5 days.</p> <p><b>Onions, dry bulb</b> Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum treatment interval between treatments is 5 days.</p> <p>*Chemigation: NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation to control thrips. Begin applications before thrips populations reach 3-5 thrips per plant. For best results, use the highest rate of NUDRIN LV INSECTICIDE and a wetting agent. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.</p> <p>** Add a wetting agent to improve coverage.</p> <p>(***)Drip Chemigation: NUDRIN LV INSECTICIDE may be applied via drip irrigation systems in ID, NV, OR, UT, and WA. NUDRIN LV INSECTICIDE controls thrips at the rate of 3 pints of product per acre of plant bed applied thru drip irrigation systems. The rate of NUDRIN LV INSECTICIDE is listed as a broadcast rate. For drip irrigation rates of NUDRIN LV INSECTICIDE to be applied per 1000 feet, see the table at the end of this section. Treatments should begin before populations of thrips reach 3-5 thrips per plant. Acidify the injection solution containing NUDRIN LV INSECTICIDE to a pH of 5 or less. Once thrips populations reach an average of 10 thrips per plant or higher, it is very difficult to achieve satisfactory control with any insecticide program. Make sequential applications at 7 to 10 day intervals. Consider use of products with an alternate mode of action as part of your thrips control program. Do not apply more than 12 pints (3.6 lbs a.i.) NUDRIN LV INSECTICIDE per crop to dry bulb onions. Do not apply more than 18 pints (5.4 lbs a.i.) NUDRIN LV INSECTICIDE per crop to green onions. Make the last application of NUDRIN LV INSECTICIDE at least 7 days before harvest.</p> <p><b>Instructions for the Use of NUDRIN LV INSECTICIDE in Drip Chemigation</b></p> <table><tr><th>Bed Spacing</th><th>Linear Ft. of Bed to Equal one Acre</th><th>NUDRIN LV INSECTICIDE Pt./A rateper 1000 Row Feet</th></tr><tr><td>36 inches</td><td>14,520 ft.</td><td>3.3 fl. oz.</td></tr><tr><td>48 inches</td><td>10,890 ft.</td><td>4.4 fl. oz.</td></tr><tr><td>60 inches</td><td>8,712 ft.</td><td>5.5 fl. oz.</td></tr><tr><td>72 inches</td><td>7,260 ft.</td><td>6.6 fl. oz.</td></tr></table>				Bed Spacing	Linear Ft. of Bed to Equal one Acre	NUDRIN LV INSECTICIDE Pt./A rateper 1000 Row Feet	36 inches	14,520 ft.	3.3 fl. oz.	48 inches	10,890 ft.	4.4 fl. oz.	60 inches	8,712 ft.	5.5 fl. oz.	72 inches	7,260 ft.
Bed Spacing	Linear Ft. of Bed to Equal one Acre	NUDRIN LV INSECTICIDE Pt./A rateper 1000 Row Feet																
36 inches	14,520 ft.	3.3 fl. oz.																
48 inches	10,890 ft.	4.4 fl. oz.																
60 inches	8,712 ft.	5.5 fl. oz.																
72 inches	7,260 ft.	6.6 fl. oz.																
Oranges CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruitree Leafroller Beet Armyworm Citrus Cutworm	1 1/2 - 3	1	72 hrs														
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.																	



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Peaches	Catfacing Insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7 to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use. Green Peach Aphid	3 pt (or 3/4 pt per 100 gal up to 400 gal per acre)	4	4 days
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop. * Oriental Fruit Moth (Ground Application Only).			
Peanuts	Corn Earworm* Potato Leafhopper Fall Armyworm	3/4 – 3	21	48 hrs
	Beet Armyworm	1 1/4 - 3		
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	1 1/2 – 3		
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. Do not feed treated vines. * NUDRIN LV INSECTICIDE has ovicidal and larvicidal control on corn earworm. **Soybean Looper is difficult to control. Do not apply to worms greater than 1/2" long. Use higher rate for severe infestations.			
Pears Northeast only	Green Fruitworm Oblique banded Leafroller	1 1/2 - 3*	7	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop. * Apply in a minimum of 50 gallons of water per acre.			
Peas (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas Garden peas Green peas English Peas Field peas Edible pod peas	Alfalfa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1 1/2 - 3	1 - Peas 5 – Forage 14 - Hay	48 hrs
	Alfalfa Caterpillar Armyworm Green Cloverworm	3/4 - 3		
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop . Do not make more than 6 applications per crop; minimum interval between treatments is 3 days. * Do not use for Cabbage Loopers in AL & GA. Chemigation: NUDRIN LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 9 pints (2.7 lbs a.i.) of NUDRIN LV INSECTICIDE per acre per crop to succulent peas.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI	
<b>Pecans</b> Southeast only	Aphids	1 1/2 - 3	30	48 hrs	
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 7 applications per crop.				
<b>Peppers</b> Including: Bell Hot Pimentos Sweet	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1 1/2 – 3	3	48 hrs	
	Variegated Cutworm	3/4 – 1 1/2			
	European Corn Borer	3			
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.				
<b>Pomegranates</b>	Omnivorous Leafroller	3	14	48 hrs	
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.				
<b>Potato</b>	Tuberworm* Loopers Aphids Beet Armyworm Leafhoppers Fall Armyworm	1 1/2 – 3	6	48 hrs	
	Variegated Cutworm Flea Beetles	1 1/2			
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. Chemigation - NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.				
	*Repeat applications of NUDRIN LV INSECTICIDE on a 5-7 day schedule, or longer as needed, to control tuber worm populations. An application schedule of effective insecticides with different modes of action may be needed to keep foliar feeding larval populations as low as possible prior to harvest to reduce the risk of larval damage to the tubers. Failure to adequately control tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage.				

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Rye	Armyworms Cereal Leaf Beetle* Aphids**	3/4 – 1 1/2	7	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Chemigation - NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: NUDRIN LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California. **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			
Sorghum Including: Sudangrass (except Sweet Sorghum)	Sorghum Webworm	1 1/2*	14**	48 hrs
	Sorghum Midge --Apply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm Armyworm	3/4 – 1 1/2*		
Do not apply more than 3 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop. * Minimum of 10 gallons per acre by ground or 2 gallons per acre by air. ** Do not apply within 14 days of feeding forage or cutting for hay.				
Soybeans	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm - Light to moderate infestations	2/5 - 3/4 (see Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs
	Corn Earworm - Moderate to severe infestations	3/4 – 1 1/2		
	Soybean Aphid	1/2 – 1		
	Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper - Light to moderate infestations	3/4 – 1		
	Silver Spotted Skipper - Moderate to severe infestations	1 – 1 1/2		
	Do not apply more than 4.5 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 3 applications per crop.			

Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Spinach	Alfalfa Looper Cabbage Looper Beet Armyworm Fall Armyworm	1 1/2 - 3	7	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply when minimum daily temp. is 32° F, or lower. Do not apply to seedlings less than 3" diameter. Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Sugar Beet	Beet Webworm Flea Beetles Carrion Beetles Beet Armyworm* Aphids* Western Yellowstriped Armyworm*	3/4 - 3	30 - Tops 21- Roots	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. *Chemigation - NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation to control beet armyworm, aphids and western yellowstriped armyworm. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.			
Summer Squash* Including: Crookneck squash Straightneck squash Scallop squash Vegetable marrow Spaghetti squash Hyotan Cucuzza Hechima Chinese okra Bitter melon Balsam pear Balsam apple Chinese Cucumber	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pt. -- 1 day over 1 1/2 pt.-- 3 days	48 hrs
	Do not apply more than 18 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop. * Fruit of the Gourd (Cucurbitaceae) family that are consumed when immature, 100% of the fruit is edible cooked or raw, once picked cannot be stored, has a soft rind which is easily penetrated, and if seeds were harvested they would not germinate.			
Tangelo, Tangerine CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			



Crops	Insects	Rate NUDRIN LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Tobacco (Except shade)	Flea Beetle Hornworm	3/4 – 1 1/2	5 - Flue cured 14 - Air or fire cured	48 hrs
	Loopers Aphids Tobacco Budworm Fall Armyworm	1 1/2		
	Do not apply more than 7.5 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop.			
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1 1/2 - 3	1	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 21 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 16 applications per crop. * For tomatillos do not apply more than 15 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop.			
Turf (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	3 (1.1 fl. ozs. per 1000 sq. ft.)		48 hrs
	Do not apply more than 12 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Do not graze or feed.			
Wheat	Armyworms Cereal Leaf Beetle* Aphids**	3/4 – 1 1/2	7	48 hrs
	Do not apply more than 6 pints of NUDRIN LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Chemigation: NUDRIN LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of NUDRIN LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: NUDRIN LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California. **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

**Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers (IBC) (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container.** Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**All Refillable Containers: Refillable container. Refilling Container.** Refill this container with NUDRIN LV INSECTICIDE containing methomyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see proceeding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not transport if container is damaged or leaking.

**In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.**

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam North America, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam North America, Inc. and Seller harmless for any claims relating to such factors.

Rotam North America, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam North America, Inc., and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM NORTH AMERICA, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the extent consistent with applicable law, Rotam North America, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM NORTH AMERICA, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM NORTH AMERICA, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Rotam North America, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam North America, Inc.

Registered: 04/05/2011  
Amended: 11/23/2011

Manufactured for:  
**ROTAM NORTH AMERICA, INC.**  
4900 Koger Blvd., Suite #140  
Greensboro, NC 27407  
1-866-927-6826





PEEL BACK BOOK HERE ▲

## RESTRICTED USE PESTICIDE

DUE TO HIGH ACUTE TOXICITY TO HUMANS

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# NUDRIN<sup>TM</sup> LV

## INSECTICIDE

KEEP OUT OF REACH OF CHILDREN

**DANGER POISON**  
**PELIGRO**



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

### Water Soluble Liquid

Contains 2.4 lbs. active ingredient per gallon

### Active Ingredient

Methomyl (S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate) ..... 29%

Other Ingredients ..... 71%

**TOTAL** ..... 100%

Contains Methanol

Packaged in Non-refillable Plastic Containers

**Net Contents: 2.5 GALLONS**

Non-refillable Plastic Container

EPA Reg. No.: 83100-27-83979

EPA Est. No.: 5905-GA-01

Manufactured for:

**ROTAM NORTH AMERICA, INC.**

4900 Koger Blvd., Suite #140

Greensboro, NC 27407

1-866-927-6826



Refer to inside for additional precautionary information including Personal Protective Equipment (PPE),  
User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions for Use

NUDLV-02-A11232011-revA09012013-2.5G

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# NUDRIN™ LV

## INSECTICIDE

GROUP 1A INSECTICIDE

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**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**PELIGRO**



**POISON**

Contains 2.4 lbs. active ingredient per gallon

**Active Ingredient**

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**Other Ingredients**.....71%

**TOTAL**.....100%

Contains Methanol

Packaged in Non-refillable Plastic Containers

### FIRST AID

(N-Methyl Carbamate Insecticide)

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.**

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

**POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to NUDRIN LV INSECTICIDE alone. However, for exposure to combinations of NUDRIN LV INSECTICIDE and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Contains Methanol. Methanol may cause blindness. Corrosive. Causes irreversible eye damage. Causes irreversible eye damage. May be fatal if swallowed or if inhaled. Harmful if absorbed through skin. Do not get in eyes or on clothing. Do not breathe spray mist. Avoid contact with skin.

Refer to additional Precautionary Statements and Directions for Use on inside booklet.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as natural rubber or other materials in EPA category C.
- Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Manufactured for:  
**ROTAM NORTH AMERICA, INC.**  
4900 Koger Blvd. Suite #140  
Greensboro, NC 27407  
1-866-927-6826

EPA Reg. No.: 83100-27-83979 EPA Est. No.: 5905-GA-01

**Net Contents: 5 GALLONS (2 x 2.5 gal.)**

**Non-refillable Plastic Container**



Refer to inside for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions for Use

NUDLV-03-A11232011-revA09012013-2.5G

## **PRECAUTIONARY STATEMENTS**

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## **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

**Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.**



# IPM *Resources LLC*

4032 Crockers Lake Blvd., Suite 818, Sarasota, FL 34238 Phone: (215) 497-9501 Fax: (215) 497-9502

*"an intellectual property management resource company"*

January 19, 2012

## VIA UPS EXPRESS

Hebert.John@epa.gov

[REF. ☎ 1 - 703-308-6249]

Document Processing Desk  
Office of Pesticide Programs (7504P)  
U. S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501  
ATTN: John Hebert (PM 7)

SUBJECT: Submission of Final Print Label Rotam Methomyl 29LV Insecticide  
EPA File Symbol (83100-27)

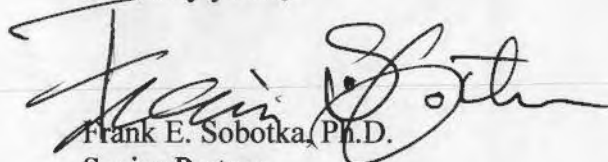
Dear Mr. Hebert:

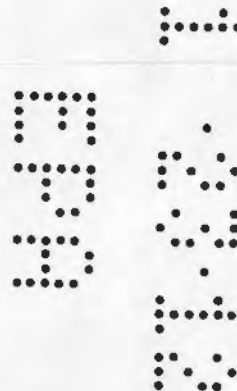
The purpose of this letter is to transmit to the Agency the Final Print Labeling on behalf of ROTAM AGROCHEMICAL COMPANY LTD for the above subject product. Please find enclosed the following:

- Transmittal Form (EPA Form 8570-1)
- Final Print Labeling Rotam Methomyl 29LV Insecticide, 1 Copy

If you have any questions or need additional information, please do not hesitate to contact me at any time.

Sincerely yours,

  
Frank E. Sobotka, Ph.D.  
Senior Partner  
IPM Resources LLC (Agent)







United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number Rotam Agrochemical Company Ltd / 83100	2. EPA Product Manager John Hebert	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Rotam Methomyl 29LV Insecticide (83100-27)	PM# 7	
5. Name and Address of Applicant (Include ZIP Code) ROTAM Agrochemical Company Limited C/O IPM Resources LLC (Agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated 11/23/2011
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of Final Printed Label Rotam Methomyl 29LV Insecticide (83100-27)

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
				<input type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1qt, 1 gal, 2.5 gal, 15 gal, bulk		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product Printed or glued		<input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____	

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Frank E. Sobotka, Ph.D.		Title Agent	
		Telephone No. (Include Area Code) 215 497-9501	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Agent	
4. Typed Name Frank E. Sobotka, Ph.D.		5. Date 1/19/12	

## RESTRICTED USE PESTICIDE

### Due to high Acute Toxicity to Humans

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP

1A

INSECTICIDE

## Rotam Methomyl 29LV Insecticide

### **Water Soluble Liquid**

Contains 2.4 lbs. active ingredient per gallon

#### **Active Ingredient**

#### **By Weight**

Methomyl

(S-methyl-N-[(methylcarbamoyl)  
oxy]thioacetimidate)

29%

#### **Other Ingredients**

71%

TOTAL

100%

Contains Methanol

**NOT REVIEWED**

In Accordance with PR Notice 82-2

Based on Draft Labeling Dated

Nov. 23, 2011

[Placeholder to identify Container type]

EPA Reg. No. 83100 - 27

EPA Est. No.: 5905-GA-01

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**POISON**



**PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions for Use on inside booklet.

Manufactured by:

Rotam Agrochemical Company Ltd.

7/F Cheung Tat Centre

18 Cheung Lee Street

Chai Wan, Hong Kong

1-866-927-6826

**Net Contents**  
**Gallons**  
**IBA**

[Booklet Cover]

PULL HERE TO OPEN ►

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**GROUP 1A INSECTICIDE**

**Rotam Methomyl 29LV Insecticide**

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EPA Reg. No. 83100 - 27

EPA Est. No.: 5905-GA-01

Manufactured by:  
Rotam Agrochemical Company Ltd.  
7/F Cheung Tat Centre  
18 Cheung Lee Street  
Chai Wan, Hong Kong  
1-866-927-6826

**Net Contents**  
**Gallons**

**TBA**

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**FIRST AID**  
**(N-Methyl Carbamate insecticide)**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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## PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS  
AND DOMESTIC ANIMALS

# KEEP OUT OF REACH OF CHILDREN

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### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as natural rubber or other materials in EPA category C.
- Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### ENGINEERING CONTROL STATEMENTS

**Human flaggers must be in enclosed cabs.**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

**Pilots must not assist in the mixing and loading operations.**

#### **USER SAFETY RECOMMENDATIONS**

##### **USERS SHOULD:**

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

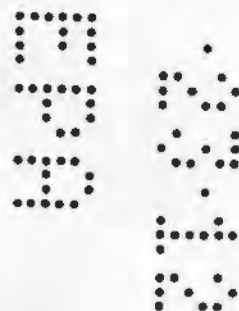
#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean highwater mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

#### **PHYSICAL AND CHEMICAL HAZARDS**

**Combustible.** Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation. The product shows potential explosive properties when heated to elevated temperatures.



## Table of Contents

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Drip

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Spray Drift Management

Crop Rate Tables

### STORAGE AND DISPOSAL

### NOTICE OF WARRANTY

## **DIRECTIONS FOR USE**

### **Restricted Use Pesticide**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

Coveralls.

Chemical-resistant gloves, such as barrier laminate or butyl rubber.

Shoes plus socks.

Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Do not formulate this product into other end-use products.

ROTAM METHOMYL 29LV INSECTICIDE is a water soluble liquid that is applied by foliar application to control many important insect pests. ROTAM METHOMYL 29LV INSECTICIDE is mixed with water for application.

Chemigation: Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Pilots must not assist in the mixing and loading operations.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer



zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Hand-held equipment is prohibited for applications to crops. This product must be applied to crops only with mechanical ground, overhead sprinkler chemigation or aerial application equipment.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### **RESISTANCE MANAGEMENT**

For resistance management, ROTAM METHOMYL 29LV INSECTICIDE is a group 1A insecticide. Repeated and exclusive use of ROTAM METHOMYL 29LV INSECTICIDE or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.irac-online.org>.

#### **INTEGRATED PEST MANAGEMENT**

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and ~~treatment~~ <sup>treating</sup> when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or ~~other~~ <sup>other</sup> qualified authorities to determine appropriate action treatment threshold levels for

treating specific pest populations in your area.

### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of ROTAM METHOMYL 29LV INSECTICIDE based on locally determined economic thresholds. More than one treatment of ROTAM METHOMYL 29LV INSECTICIDE may be required to control a population of pests.

### BENEFICIAL ARTHROPODS

ROTAM METHOMYL 29LV INSECTICIDE at rates of 2/5 to 3/4 pint per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ROTAM METHOMYL 29LV INSECTICIDE. Fill spray tank 1/4 to 1/2 full of water. Add ROTAM METHOMYL 29LV INSECTICIDE directly to spray tank. Mix thoroughly. Use mechanical or hydraulic means; do not use air agitation. Spray mix should not be stored overnight in spray tank.

**Compatibility** - Since formulations may be changed and new ones introduced, in this situation users can premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.) before applying the product. Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use ROTAM METHOMYL 29LV INSECTICIDE with Bordeaux mixture (copper sulfate and hydrated lime), Du Ter triphenyltin hydroxide, lime sulfur, Rayplex iron nor in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

**Tank Mix Sequence** - Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

1. Water soluble bags.
2. Water dispersible granules.
3. Wettable powders.
4. Water based suspension concentrates.
5. ROTAM METHOMYL 29LV INSECTICIDE and other water soluble concentrates.
6. Oil based suspension concentrates.
7. Emulsifiable concentrates.
8. Adjuvants, surfactants, oils, soluble fertilizers, and drift retardants. Follow local practice and manufacturer's recommendation.

### APPLICATION

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of ROTAM METHOMYL 29LV INSECTICIDE should be applied, as needed, to keep pest populations within threshold limits. On most crops, ROTAM METHOMYL 29LV INSECTICIDE should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since ROTAM METHOMYL 29LV INSECTICIDE is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for peaches and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

ROTAM METHOMYL 29LV INSECTICIDE is recommended for use as a low volume aerial spray 0.53 gpa (2L) for cotton\* and soybeans\* and 1 gpa for the crops listed below providing the following conditions are met:

- equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such
- that the spray is delivered to the target area,
- local regulations do not prohibit low-volume aerial sprays,
- use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa	Celery	Peas (succulent)
Anise	Collards	Peppermint
Asparagus	Corn	Peppers
Barley	Cotton	Potato
Beans	Cucumber	Rye
Broccoli	Lettuce	Soybean
Brussels sprouts	Melons	Spinach
Cabbage	Mint	Sugar beet
Carrot	Oats	Summer Squash
Cauliflower	Peanuts	Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

\* Not registered for aerial application in a diluted volume of less than 1 gal in CA.

#### SPRAY TANK CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.



## CHEMIGATION

### Overhead Sprinkler Chemigation

#### **Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE on Alfalfa, Barley, Dry Beans, Oats, Green and Dry Bulb Onions, Potatoes, Rye, Succulent Beans, Succulent Peas, Sugar Beets, Sweet Corn, and Wheat Using Overhead Sprinkler Chemigation**

Overhead sprinkler chemigation is allowed for use in alfalfa, barley, succulent and dry beans, oats, onions, succulent peas, potatoes, rye, sugar beets, sweet corn and wheat. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of ROTAM METHOMYL 29LV INSECTICIDE as high as possible in the application. Apply ROTAM METHOMYL 29LV INSECTICIDE in 0.1 to 0.2 inches of water per acre.

ROTAM METHOMYL 29LV INSECTICIDE is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of ROTAM METHOMYL 29LV INSECTICIDE should take place when the insects are active and most likely to come into direct contact with the application.

#### **Types of Overhead Sprinkler Irrigation Systems**

ROTAM METHOMYL 29LV INSECTICIDE may be applied through overhead sprinkler irrigation systems for control of various pests. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this main product label.

#### **Directions for Overhead Sprinkler Chemigation**

**Preparation:** A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7).



**Injection Into Overhead Sprinkler Chemigation Systems** Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water.

**Operation:** Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply ROTAM METHOMYL 29LV INSECTICIDE in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

Nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices must be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

**Cleaning the System:** Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

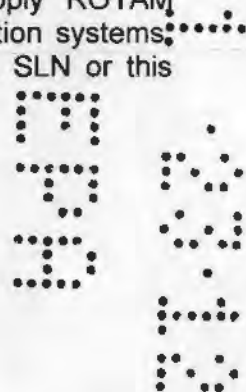
## **Drip Chemigation**

### **Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE on green and dry bulb onions Using Drip Chemigation**

Drip chemigation is allowed in green and dry bulb onions. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

#### **Types of Drip Irrigation Systems**

The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this main product label.



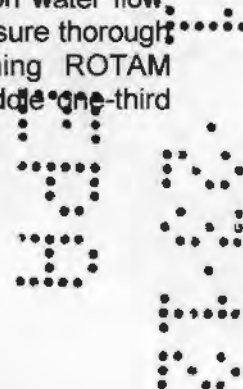
## Directions for Drip Chemigation

### **Drip Guidance:**

1. Tape placement is critical. All products applied via drip irrigation must be deposited in the root zone. Place the tape either under each row or within each bed at the minimum depth that allows planting. The goal is to have the tape within or adjacent to the root zone and buried no more than 2 inches deep.
2. Optimum emitter spacing is 6 inches or less. The maximum emitter spacing must not exceed 12 inches. Emitters must be free of debris and deliver consistent amounts of water. Best results are seen when the same amount of ROTAM METHOMYL 29LV INSECTICIDE comes out of each emitter.
3. Adjust the irrigation cycle so that the water reaches the entire root zone without being pushed beyond the root zone.
4. The minimum injection time that will result in uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE throughout the field is the time it takes water to move from the injection point to the most distant emitter. Extending the injection time to twice the minimum will improve uniformity of the application. Also applications made with lower delivery volumes of water will improve uniformity.
5. When the drip tape is located between two single or double rows of onions, begin injection of ROTAM METHOMYL 29LV INSECTICIDE as soon as the system is up to pressure and continue through the first half to two-thirds of the irrigation cycle. The purpose is to ensure that the ROTAM METHOMYL 29LV INSECTICIDE is pushed all the way to the root zone of the outer row and not left in the area around the emitter.
6. Applications should be made before pests reach thresholds.
7. Drip chemigation works best when fields are relatively flat.
8. The tape flow rate should be matched to the soil type, crop and climate. Too much flow can result in puddling and excessive time at soil saturation. Consult the tape manufacturer for more information.

**Preparation:** A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight.

**Injection Into Drip Chemigation Systems:** Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. The injection solution containing ROTAM METHOMYL 29LV INSECTICIDE should be injected during the middle one-third of the irrigation cycle.



**Operation:** Start the water pump and let the system achieve a desired pressure and flow before starting the injector. Start the injector and calibrate the injection system. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Do not apply when system connections or fittings leak or when emitters do not provide uniform distribution.

**Cleaning the System:** Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. ROTAM METHOMYL 29LV INSECTICIDE should not be applied at the same time that a drip/irrigation line clean out product is being used as performance may be reduced. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

### **Additional Chemigation Directions (both overhead and drip)**

#### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 29LV INSECTICIDE must provide for uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

#### **Equipment Calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 29LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

#### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 29LV INSECTICIDE is in the irrigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.



1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e. g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### **Posting of Areas to be Treated**

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background.



At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

### AERIAL DRIFT REDUCTION ADVISORY INFORMATION

#### Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.**

#### Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### Controlling Droplet Size - Aircraft

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the

recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
- **Boom Length** - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** - Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- **Swath Adjustment** - When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges of the fields, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

### BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

### AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

### AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

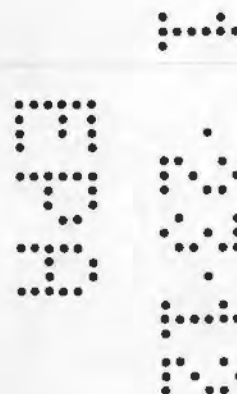
Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift.

*Adjust deflectors and aiming devices so that spray is only directed into the canopy.*

*Block off upward pointed nozzles when there is no overhanging canopy.*

*Use only enough air volume to penetrate the canopy and provide good coverage.*

*Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.*



## CROP RATE TABLE

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Western Yellowstriped Armyworm Yellowstriped Armyworm	1 1/2 – 3	7 *	48 hrs
	Alfalfa Weevil Larvae	3		
	Variegated Cutworm	3/4 - 3		
	Do not apply to dormant or semi-dormant alfalfa when minimum. daily temp. is 50° F, or lower. Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Do not apply within 7 days of cutting or allowing livestock to graze.			
Anise (Fennel)	Cabbage Looper	3	7	48 hrs
	Beet Armyworm	1 1/2 - 3		
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop.  Do not make more than 10 applications per crop.			



Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Crops	REI
Apple Ground application only	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug	1 1/2 - 3 *	14	72 hrs
	Codling Moth (10-12 day spray intervals)			
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	3 *		
	Do not use on Early Macintosh & Wealthy varieties Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop; minimum interval between treatments is 7 days. * Apply in a minimum of 50 gallons of water per acre.			
Asparagus	Beet Armyworm Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1 1/2 - 3	1	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Avocado	Western Avocado Leafroller Omnivorous Looper	1 1/2 - 3	1	48 hrs
	Do not apply more than 3 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			

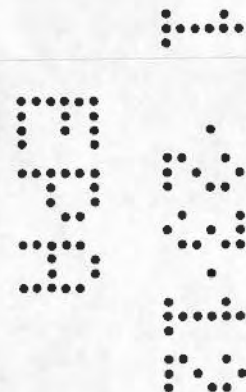
Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Barley</b>	Armyworms Cereal Leaf Beetle* Aphids**	3/4 – 1 1/2	7	48 hrs
	<p>Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop.</p> <p>Do not make more than 4 applications per crop.</p> <p>Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.</p> <p>*Cereal leaf beetle: ROTAM METHOMYL 29LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.</p> <p>**Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when the aphid population is low (&lt;10 adults per stem).</p>			
<b>Beans (Succulent)</b> Including:  Kidney Lima Mung Navy Pinto Snap Wax Broad Fava Asparagus Blackeyed peas Cowpeas Chick peas Garbanzo beans Sweet lupine White sweet lupine White lupine Grain lupine	Leafhopper Mexican Bean Beetle	3/4 – 3	Succulent Beans - 3/4 - 1 1/2 pts. – 1, over 1 1/2 pts. – 3;  3 - Vines 7 - Hay	48 hrs
	Fall Armyworm Variegated Cutworm(**)	1 1/2		
	Beet Armyworm(**) Corn Earworm Saltmarsh Caterpillar(**) Yellowstriped Armyworm(**) Western Yellowstriped Armyworm(**) Lygus Bugs Thrips Aphids(**) Loopers(**)	1 1/2 - 3		
	European Corn Borer (Ovicide & Larvicide)-- Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals To control eggs and larvae			
	Spotted Cucumber Beetle	3/4 – 1 1/2		

Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop.

Do not make more than 10 applications per crop.

\* Do not use for Loopers in AL & GA.

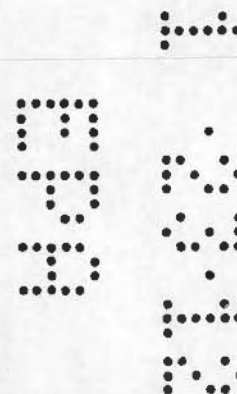
(\*\*) Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs a.i.) ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to succulent beans.



Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Beans (Dry) (Same as Succulent Beans)	(Same as Succulent Beans)	(Same as Succulent Beans)	14 - Dry Beans * 14 - Vines * 14 - Hay *	48 hrs
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE/acre /crop. Do not make more than 10 applications per crop. Do not use for Loopers in AL & GA. *Do not apply within 14 days of cutting. (**)Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs a.i.) ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to dry beans.			
Beets (Table)	Imported Cabbageworm	3/4 – 3	0 - roots 10 -tops	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1 1/2 - 3		
	Cucumber Beetle Variegated Cutworm	1 1/2		
	Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	3/4 - 3	7 - Forage * 3 - Dehydrated Hay **	48 hrs
	Do not apply more than 3 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. * Do not apply within 7 days of feeding forage or allowing livestock to graze. ** Do not apply within 3 days of cutting for hay.			
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1 1/2	3	48 hrs
	Cranberry Fruitworm* Cherry Fruitworm*	1 1/2 – 3		
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	3		
	Blueberry Maggot	3/4-1 1/2		



	Do not apply during bloom. Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. * For ground use only.			
Broccoli	Loopers	1 1/2 - 3**	3	48 hrs
	Diamondback Moth			
	Imported Cabbageworm	3/4 - 3**		
	Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			



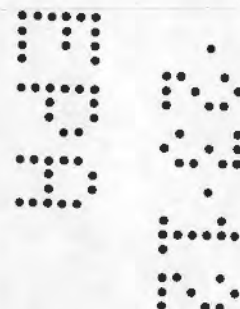
Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Brussels Sprouts	Loopers Imported Cabbageworm Diamondback Moth	1 1/2 - 3 **	3	48 hrs
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			
Cabbage	Loopers * Diamondback Moth Fall Armyworm	1 1/2 - 3 **	1	48 hrs
	Imported Cabbageworm	3/4 - 3 **		
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 24 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 15 applications per crop; minimum interval between treatments is 2 days. * Do not use for Loopers in AL & GA. ** Add a wetting agent to improve coverage.			
Carrot	Beet Armyworm Armyworms Aster Leafhopper	1 1/2 - 3	1	48 hrs
	Variegated Cutworm	3/4 - 1 1/2		
	Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Cauliflower	Imported Cabbageworm	3/4 - 3 **	3	48 hrs
	Loopers Diamondback Moth	1 1/2 - 3 **		
	Variegated Cutworm	1 1/2 **		
	Do not apply more than 24 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop; minimum interval between treatments is 2 days. ** Add a wetting agent to improve coverage.			
Celery	Beet Armyworm Aster Leafhopper	1 1/2 - 3	7	48 hrs
	Loopers	3		
	Variegated Cutworm	1 1/2		
	Armyworms	3/4 - 3		
	Do not apply more than 24 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1 1/2 - 3	80	48 hrs
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
Chinese Cabbage	Loopers Beet Armyworm	1 1/2 - 3*	10	48 hrs
	Do not apply more than 24 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. * Minimum of 25 gallons water per acre by ground or 5 gallons by air.			
Collards (Fresh market only)	Diamondback Moth Variegated Cutworm	1 1/2	10	48 hrs
	Imported Cabbageworm Beet Armyworm Loopers*	1 1/2 - 3		
	Do not apply when temp. is less than 50° F. Do not apply when crop is less than 10" tall. Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. * Do not use for Loopers in AL & GA.			
Corn (Field, Popcorn & Seed)	Earworm – (Ovicide/Larvicide) Armyworm Fall Armyworm European Corn Borer Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids	3/4 – 1 1/2	21 - Ears 3 - Forage* 21 - Stover*	48 hrs
	Variegated Cutworm, Beet Armyworm	1 1/2		
	Do not apply more than 7.5 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. *Corn forage is green actively growing plants that are harvested with the ears intact. The plants can be fed directly to animals or used to make silage. Corn stover are the parts of the plant that remain after removal of the grain at full plant maturity. These remaining stalks and leaves can be fed as roughage to animals.			

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Corn (Sweet)	Earworm--Whorl as needed	1 – 1 1/2	0 -Ears 3 - Forage 21 - Stover	48 hrs
	Fall Armyworm* Armyworm* Earworm*, (Ovicide/Larvicide) European Corn Borer -Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids*	3/4 – 1 1/2		
	Variegated Cutworm Beet Armyworm*	1 1/2		
	Certain hybrid varieties of sweet corn are susceptible to methomyl injury. Treat a small area to determine crop safety before full scale spraying. Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 28 applications per crop; minimum interval between treatments is 1 day. *Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied via overhead sprinkler in CO & NM at the rate of 1 1/2 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 1 day intervals or until insect populations are brought below threshold. Do not apply more than 21 pints (6.3 lbs a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to sweet corn. Make the last application of ROTAM METHOMYL 29LV INSECTICIDE at least 0 days for ears, 3 days for forage, or 21 days for stover before harvest.			
Cotton – All US	Ovicide/Larvicide - Bollworm Tobacco Budworm (Initiate schedule when significant numbers of eggs are present Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) Start treatment on low level population for suppression.	2/5 - 3/4 (see Insect Predator Section)	15	72 hrs
	Cotton Leafworm	3/4 – 1 1/2		
	Cotton Fleahopper (as needed)	2/5 – 3/4		
	Aphids, Thrips	3/4		



Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
East of Rockies only	<b>(Early Season)</b> Bollworm Tobacco Budworm Beet Armyworm Cotton Leafperforator Fall Armyworm Lygus Bugs/PlantBugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10 days.	1 1/2		
	<b>(Late Season)</b> Bollworm Tobacco Budworm Beet Armyworm Cotton Leafperforator Fall Armyworm Lygus Bugs/Plant Bugs (adult and nymphs) Up to 3 applications at 3-5 day intervals after desired boll load set on plants.	1 1/2 – 2 1/4		
Texas	Cotton Aphid	3/4 – 2		
West of Rockies only	<b>Larvicide for worms:</b> Bollworm Fall Armyworm Tobacco Budworm Lygus Bugs Beet Armyworm	1 1/2 – 2 1/4		
	Cotton Leafperforator	1 – 2 1/4		
For applications West of the Rockies, make applications on 3-5 day intervals after desired boll load set on plants. <b>For all applications made to cotton in the United States:</b> Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. Do not graze or feed. Use may redden cotton. If excessive, stop or alternate with other insecticides.				



Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Cucumber	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pt. – 1 Over 1 1/2 pt.- 3	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 12 applications /crop.			
Eggplant	Green Peach Aphid	3/4 – 3	5	48 hrs
	Tomato Pinworm (Ground Application Only) Beet Armyworm Corn Earworm	1 1/2 - 3		
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
Endive, Escarole	Beet Armyworm	1 1/2 - 3	10	48 hrs
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Garlic	Beet Armyworm	1 1/2**	7	48 hrs
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop. ** Add a wetting agent to improve coverage.			
Grapefruit CA, AZ & HI only	Thrips Fruitree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
Horseradish (Ground application Only)	Aphids Thrips	1 1/2	65	48 hrs
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Leafy Green Vegetables:</b> Beet (tops) Dandelions, Kale, Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1 1/2 - 3	10	48 hrs
	Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. * Do not use for Cabbage Loopers in AL & GA.			
<b>Lemon</b> CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Lentils</b>	Western Yellowstriped Armyworm	1 1/2 - 3	21	48 hrs
	Do not apply more than 3 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
<b>Lettuce</b> (Head and Leaf varieties)	Alfalfa Looper	3/4 - 3	3/4-1 1/2 pt. – 7 over 1 1/2 pts. – 10	48 hrs
	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1 1/2 - 3		
	Variegated Cutworm	1 1/2		
	<b>Lettuce (head varieties)</b> Do not apply more than 24 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 15 applications per crop; minimum interval between treatments is 2 days.			
	<b>Lettuce (leaf varieties)</b> Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 2 days.			

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Melons</b> Including: Canteloupe Casaba Santa Claus melon Crenshaw melon Honeydew melon Honey balls Persian melon Golden Pershaw melon Mango melon Pineapple melon Snake melon Watermelon	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pts. — 1 day over 1 1/2 pts. — 3 days	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop.			
<b>Mint</b> (Peppermint, Spearmint)	Variegated Cutworm Alfalfa Looper	3	14	48 hrs
	Flea Beetles	2 1/4 - 3		
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Nectarine</b> CA & AZ only	Thrips	1 1/2 – 3	1	72 hrs
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 3 applications per crop.			
<b>Oats</b>	Armyworms Cereal Leaf Beetle* Aphids**	3/4 – 1 1/2	7	48 hrs
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 29LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California. **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low. ( $<10$ adults per stem).			

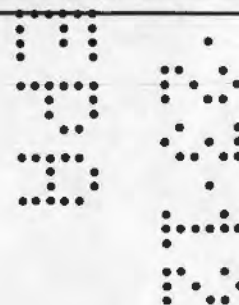


Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Onions (Green & Dry Bulb)	Beet Armyworm	1 1/2 - 3**	7 - Green & Dry Bulb Onions	48 hrs
	Thrips*(***) Variegated Cutworm Black Cutworm	3**		
	<b>Onions, green</b> Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 5 days. <b>Onions, dry bulb</b> Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop; minimum treatment interval between treatments is 5 days. *Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation to control thrips. Begin applications before thrips populations reach 3-5 thrips per plant. For best results, use the highest rate of ROTAM METHOMYL 29LV INSECTICIDE and a wetting agent. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information. ** Add a wetting agent to improve coverage. (***)Drip Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied via drip irrigation systems in ID, NV, OR, UT, and WA. ROTAM METHOMYL 29LV INSECTICIDE controls thrips at the rate of 3 pints of product per acre of plant bed applied thru drip irrigation systems. The rate of ROTAM METHOMYL 29LV INSECTICIDE is listed as a broadcast rate. For drip irrigation rates of ROTAM METHOMYL 29LV INSECTICIDE to be applied per 1000 feet, see the table at the end of this section. Treatments should begin before populations of thrips reach 3-5 thrips per plant. Acidify the injection solution containing ROTAM METHOMYL 29LV INSECTICIDE to a pH of 5 or less. Once thrips populations reach an average of 10 thrips per plant or higher, it is very difficult to achieve satisfactory control with any insecticide program. Make sequential applications at 7 to 10 day intervals. Consider use of products with an alternate mode of action as part of your thrips control program. Do not apply more than 12 pints (3.6 lbs a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to dry bulb onions. Do not apply more than 18 pints (5.4 lbs a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to green onions. Make the last application of ROTAM METHOMYL 29LV INSECTICIDE at least 7 days before harvest.			
<b>Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Drip Chemigation</b>				
Bed Spacing	Linear Ft. of Bed to Equal one Acre	Rotam Methomyl 29LV Insecticide Pt./A rate per 1000 Row Feet		
36 inches	14,520 ft.	3.3 fl. oz.		
48 inches	10,890 ft.	4.4 fl. oz.		
60 inches	8,712 ft.	5.5 fl. oz.		
72 inches	7,260 ft.	6.6 fl. oz.		

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Oranges</b> CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruittree Leafroller Beet Armyworm Citrus Cutworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
<b>Peaches</b>	Catfacing Insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7 to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual- type insecticides registered for this use. Green Peach Aphid	3 pt (or 3/4 pt per 100 gal up to 400 gal per acre)	4	4 days
	Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop. * Oriental Fruit Moth (Ground Application Only).			

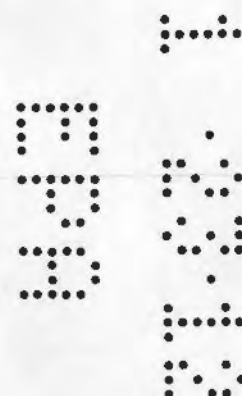
Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Peanuts	Corn Earworm* Potato Leafhopper Fall Armyworm	3/4 – 3	21	48 hrs
	Beet Armyworm	1 1/4 - 3		
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	1 1/2 – 3		
	Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop. Do not feed treated vines. * ROTAM METHOMYL 29LV INSECTICIDE has ovicidal and larvicidal control on corn earworm. **Soybean Looper is difficult to control. Do not apply to worms greater than 1/2" long. Use higher rate for severe infestations.			
Pears Northeast only	Green Fruitworm Oblique banded Leafroller	1 1/2 - 3*	7	48 hrs
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop. * Apply in a minimum of 50 gallons of water per acre.			
Peas (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas Garden peas Green peas English Peas Field peas Edible pod peas	Alfalfa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1 1/2 - 3	1 - Peas 5 – Forage 14 - Hay	48 hrs
	Alfalfa Caterpillar Armyworm Green Cloverworm	3/4 - 3		
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 6 applications per crop; minimum interval between treatments is 3 days. * Do not use for Cabbage Loopers in AL & GA. Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied via overhead sprinkler irrigation in ID, MT, NV, OR, UT, & WA at the rate of 3 pints of product per acre. Apply in 0.1 to 0.2 inches of water per acre. Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 9 pints (2.7 lbs a.i.) of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to succulent peas.			
Pecans Southeast only	Aphids	1 1/2 - 3	30	48 hrs
	Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 7 applications per crop.			

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
<b>Peppers</b> Including: Bell Hot Pimentos Sweet	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1 1/2 – 3	3	48 hrs
	Variegated Cutworm	3/4 – 1 1/2		
	European Corn Borer	3		
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop.			
<b>Pomegranates</b>	Omnivorous Leafroller	3	14	48 hrs
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop.			
<b>Potato</b>	Tuberworm* Loopers Aphids Beet Armyworm Leafhoppers Fall Armyworm	1 1/2 – 3	6	48 hrs
	Variegated Cutworm Flea Beetles	1 1/2		
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. Chemigation - ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Repeat applications of ROTAM METHOMYL 29LV INSECTICIDE on a 5-7 day schedule, or longer as needed, to control tuber worm populations. An application schedule of effective insecticides with different modes of action may be needed to keep foliar feeding larval populations as low as possible prior to harvest to reduce the risk of larval damage to the tubers. Failure to adequately control tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage.			

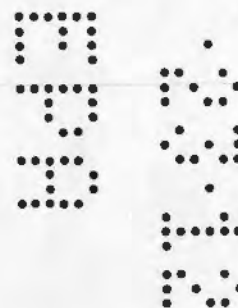




Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Rye	Armyworms Cereal Leaf Beetle* Aphids**	3/4 – 1 1/2	7	48 hrs
<p>Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop.  Do not make more than 4 applications per crop.  Chemigation - ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.</p> <p>*Cereal leaf beetle: ROTAM METHOMYL 29LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.</p> <p>**Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (&lt;10 adults per stem).</p>				

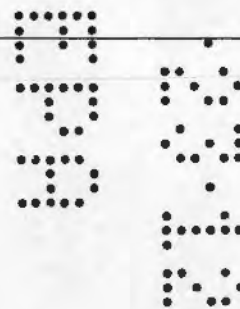


Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Sorghum Including: Sudangrass  (except Sweet Sorghum)	Sorghum Webworm	1 1/2*	14**	48 hrs
	Sorghum Midge --Apply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm Armyworm	3/4 - 1 1/2*		
	Do not apply more than 3 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 2 applications per crop. * Minimum of 10 gallons per acre by ground or 2 gallons per acre by air. ** Do not apply within 14 days of feeding forage or cutting for hay.			
Soybeans	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm - <b>Light to moderate Infestations</b>	2/5 - 3/4 (see Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs
	Corn Earworm - <b>Moderate to severe infestations</b>	3/4 - 1 1/2		
	Soybean Aphid	1/2 - 1		
	Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper - <b>Light to moderate infestations</b>	3/4 - 1		
	Silver Spotted Skipper - <b>Moderate to severe infestations</b>	1 - 1 1/2		
	Do not apply more than 4.5 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 3 applications per crop.			



Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Spinach	Alfalfa Looper Cabbage Looper Beet Armyworm Fall Armyworm	1 1/2 - 3	7	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply when minimum daily temp. is 32° F, or lower. Do not apply to seedlings less than 3" diameter. Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 8 applications per crop.			
Sugar Beet	Beet Webworm Flea Beetles Carrion Beetles Beet Armyworm* Aphids* Western Yellowstripe Armyworm*	3/4 - 3	30 - Tops 21- Roots	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 10 applications per crop. *Chemigation - ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation to control beet armyworm, aphids and western yellowstriped armyworm. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.			
Summer Squash* Including: Crookneck squash Straightneck squash Scallop squash Vegetable marrow Spaghetti squash Hyotan Cucuzza Hechima Chinese okra Bitter melon Balsam pear Balsam apple Chinese Cucumber	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1 1/2 - 3	1 1/2 pt. – 1 day over 1 1/2 pt.— 3 days	48 hrs
	Do not apply more than 18 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 12 applications per crop. * Fruit of the Gourd (Cucurbitaceae) family that are consumed when immature, 100% of the fruit is edible cooked or raw, once picked cannot be stored, has a soft rind which is easily penetrated, and if seeds were harvested they would not germinate.			

Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Tangelo, Tangerine CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1 1/2 - 3	1	72 hrs
	Do not apply more than 9 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop.			
Tobacco (Except shade)	Flea Beetle Hornworm	3/4 – 1 1/2	5 - Flue cured 14 - Air or fire cured	48 hrs
	Loopers Aphids Tobacco Budworm Fall Armyworm	1 1/2		
	Do not apply more than 7.5 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop.			
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1 1/2 - 3	1	48 hrs
	Variegated Cutworm	1 1/2		
	Do not apply more than 21 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 16 applications per crop. * For tomatillos do not apply more than 15 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 5 applications per crop.			
Turf (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	3 (1.1 fl. ozs. per 1000 sq. ft.)		48 hrs
	Do not apply more than 12 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Do not graze or feed.			





Crops	Insects	Rate ROTAM METHOMYL 29LV INSECTICIDE Pts. Per Acre	Last Application -Days To Harvest	REI
Wheat	Armyworms Cereal Leaf Beetle* Aphids**	3/4 – 1 1/2	7	48 hrs
	Do not apply more than 6 pints of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop. Do not make more than 4 applications per crop. Chemigation: ROTAM METHOMYL 29LV INSECTICIDE may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 29LV INSECTICIDE. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 29LV INSECTICIDE can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California. **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### CONTAINER HANDLING:

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

**Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

#### *Storage and Disposal Continued*

**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container.** Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

*Storage and Disposal Continued*

**All Refillable Containers: Refillable container. Refilling Container:** Refill this container with ROTAM METHOMYL 29LV INSECTICIDE containing methomyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see proceeding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not transport if container is damaged or leaking.

**In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.**

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam Agrochemical Company Limited or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam Agrochemical Company Limited and Seller harmless for any claims relating to such factors.

Rotam Agrochemical Company Limited warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam Agrochemical Company Limited, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the extent consistent with applicable law, Rotam Agrochemical Company Limited or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM AGROCHEMICAL COMPANY LIMITED OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Rotam Agrochemical Company Limited and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam Agrochemical Company Limited.

Manufactured by:  
7/F Cheung Tat Centre  
18 Cheung Lee Street  
Chai Wan, Hong Kong  
1-866-927-6826

Registered: [TBA]





## RESTRICTED USE PESTICIDE

### Due to high Acute Toxicity to Humans

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

## Rotam Methomyl 29LV Insecticide

### ***Water Soluble Liquid***

Contains 2.4 lbs. active ingredient per gallon

<b><i>Active Ingredient</i></b>	<b><i>By Weight</i></b>
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Methomyl (S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	29%
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<b><i>Other Ingredients</i></b>	71%
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TOTAL	100%
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Contains Methanol

[Placeholder to identify Container type]

EPA Reg. No. 83100 - 27

EPA Est. No.: 5905-GA-01

## KEEP OUT OF REACH OF CHILDREN

### DANGER

### POISON



## PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards, and Directions For Use.

**FIRST AID**  
**(N-Methyl Carbamate insecticide)**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**ATROPINE IS AN ANTIDOTE --SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.**

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

**POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

**NOTE TO PHYSICIAN**

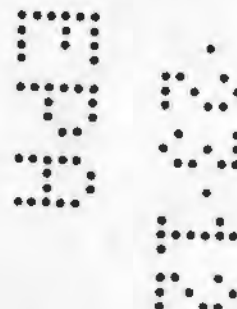
Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 29LV INSECTICIDE alone. However, for exposure to combinations of ROTAM METHOMYL 29LV INSECTICIDE and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.



**HAZARDS TO HUMANS  
AND DOMESTIC ANIMALS  
KEEP OUT OF REACH OF CHILDREN  
DANGER POISON**



**PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Contains Methanol. Methanol may cause blindness. Corrosive. Causes irreversible eye damage. May be fatal if swallowed or if inhaled. Harmful if absorbed through skin. Do not get in eyes or on clothing. Do not breathe spray mist. Avoid contact with skin.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as natural rubber or other materials in EPA category C.
- Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of

equipment washwater, or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### **PHYSICAL AND CHEMICAL HAZARDS**

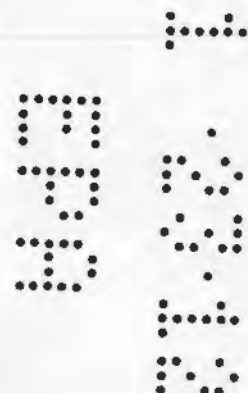
**Combustible.** Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation. The product shows potential explosive properties when heated to elevated temperatures.

#### **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.





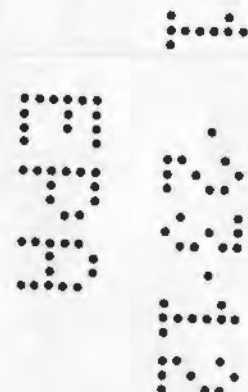
*Storage and Disposal Continued*

**CONTAINER HANDLING:**

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

**Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. <sup>Tip</sup> container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.



*Storage and Disposal Continued*

**Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down):**

**Nonrefillable container.** Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**All Refillable Containers: Refillable container. Refilling Container:** Refill this container with ROTAM METHOMYL 29LV INSECTICIDE containing methomyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. **Disposing of Container:** Do not reuse this container for any other purpose other than refilling (see proceeding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not transport if container is damaged or leaking.

**In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.**

Manufactured by:  
Rotam Agrochemical Company Ltd.  
7/F Cheung Tat Centre  
18 Cheung Lee Street  
Chai Wan, Hong Kong  
1-866-927-6826

Registered: (TBA)

**Net Contents**  
**Gaflöös**  
**TBA:**

## Restricted Use Pesticide

Due to High Acute Toxicity to Humans.

For retail sale and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Direct supervision for this product requires the certified applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, or repair or cleaning of application equipment.

# Supplemental Labeling      Green and Dry Bulb Onions

## ROTAM METHOMYL 29LV INSECTICIDE

EPA Reg. No. 83100-27

FOR USE ON GREEN AND DRY BULB ONIONS VIA DRIP IRRIGATION IN  
THE STATES OF IDAHO, NEVADA, OREGON, UTAH, AND WASHINGTON

This Supplemental Labeling expires on November 23, 2014 and must not be distributed or used after that date.

### DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

### IMPORTANT

**BEFORE USING METHOMYL 29LV INSECTICIDE, READ AND FOLLOW ALL APPLICABLE DIRECTIONS; RESTRICTIONS; AND PRECAUTIONS ON THE EPA - REGISTERED LABEL.**

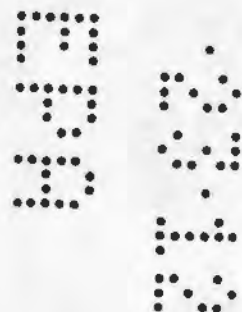
This bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

### Application Information, Rates and Timing

ROTAM METHOMYL 29LV INSECTICIDE controls thrips in green and dry bulb onions at the rate of 3 pints of product per acre of plant bed applied through drip irrigation systems. The rate of ROTAM METHOMYL 29LV INSECTICIDE is listed as a broadcast rate. For drip irrigation rates of ROTAM METHOMYL 29LV INSECTICIDE to be applied per 1000 feet, see the table at the end of this section. Treatments should begin before populations of thrips reach 3-5 thrips per plant. Acidify the injection solution containing ROTAM METHOMYL 29 LV INSECTICIDE to a pH of 5 or less. Once thrips populations reach an average of 10 thrips per plant or higher, it is very difficult to achieve satisfactory control with any insecticide program.

Manufactured by:  
Rotam Agrochemical Company Ltd.  
7F, Cheung Tat Centre  
18 Cheung Lee Street  
Chai Wan, Hong Kong



**Application Information, Rates and Timing (continued)**

Make sequential applications at 7 to 10 day intervals. Consider use of products with an alternate mode of action as part of your thrips control program. Do not apply more than 12 pints (3.6 lbs a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to dry bulb onions. Do not apply more than 18 pints (5.4 lbs a.i.) ROTAM METHOMYL 29LV INSECTICIDE per crop to green onions. Make the last application of ROTAM METHOMYL 29LV INSECTICIDE at least 7 days before harvest.

**Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Drip Chemigation**

Bed Spacing	Linear Ft. of Bed to Equal One Acre	ROTAM METHOMYL 29LV INSECTICIDE pt./A rate per 1000 Row Feet
36 inches	14,520 ft.	3.3 fl. oz.
48 inches	10,890 ft.	4.4 fl. oz.
60 inches	8,712 ft.	5.5 fl. oz.
72 inches	7,260 ft.	6.6 fl. Oz

**Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Drip Chemigation Systems****Types of Irrigation Systems**

ROTAM METHOMYL 29LV INSECTICIDE may be applied through drip irrigation systems for control of thrips in green and dry bulb onions. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems, except those allowed by instructions provided in supplemental, SLN or the main product label.

**Drip Guidance**

1. Tape placement is critical. All products applied via drip irrigation must be deposited in the root zone. Place the tape either under each row or within each bed at the minimum depth that allows planting. The goal is to have the tape within or adjacent to the root zone and buried no more than 2 inches deep.
2. Optimum emitter spacing is 6 inches or less. The maximum emitter spacing must not exceed 12 inches. Emitters must be free of debris and deliver consistent amounts of water. Best results are seen when the same amount of ROTAM METHOMYL 29LV INSECTICIDE comes out of each emitter.
3. Adjust the irrigation cycle so that the water reaches the entire root zone without being pushed beyond the root zone.
4. The minimum injection time that will result in uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE throughout the field is the time it takes water to move from the injection point to the most distant emitter. Extending the injection time to twice the minimum will improve uniformity of the application. Also applications made with lower delivery volumes of water will improve uniformity.
5. When the drip tape is located between two single or double rows of onions, begin injection of ROTAM METHOMYL 29LV INSECTICIDE as soon as the system is up to pressure and continue through the first half to two-thirds of the irrigation cycle. The purpose is to ensure that the ROTAM METHOMYL 29LV INSECTICIDE is pushed all the way to the root zone of the outer



- row and not left in the area around the emitter.
6. Applications should be made before pests reach thresholds.
  7. Drip chemigation works best when fields are relatively flat.
  8. The tape flow rate should be matched to the soil type, crop and climate. Too much flow can result in puddling and excessive time at soil saturation. Consult the tape manufacturer for more information.

#### **Preparation**

A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight.

#### **Injection Into Chemigation Systems**

Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. The injection solution containing ROTAM METHOMYL 29LV INSECTICIDE should be injected during the middle one-third of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 29LV INSECTICIDE must provide for uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

#### **Equipment calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 29LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

#### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 29LV INSECTICIDE is in the irrigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from

backflow.

2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e. g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### **Posting of Areas to be Treated**

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### **Operation**

Start the water pump and let the system achieve the desired pressure and flow before starting the injector. Start the injector and calibrate the injection system. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Do not apply when system connections or fittings leak or when emitters do not provide uniform distribution.

**Cleaning the System**

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. ROTAM METHOMYL 29LV INSECTICIDE should not be applied at the same time that a drip/irrigation line clean out product is being used as performance may be reduced. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

**IMPORTANT**

**BEFORE USING ROTAM METHOMYL 29LV INSECTICIDE, READ AND CAREFULLY NOTE THE CAUTIONARY STATEMENTS AND OTHER PROCEDURAL INFORMATION APPEARING ON THE EPA REGISTERED LABEL OR ON OTHER SUPPLEMENTAL LABELS.**

This bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using ROTAM METHOMYL 29LV INSECTICIDE. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the limitation of Warranty and Liability on the Section 3 Federal product label.



## Restricted Use Pesticide

Due to High Acute Toxicity to Humans

For retail sale and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Direct supervision for this product requires the certified applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, or repair or cleaning of application equipment.

## Supplemental Labeling

**Succulent Peas  
Succulent Beans  
Dry Beans**

### **ROTAM METHOMYL 29LV INSECTICIDE EPA Reg. No. 83100-27**

**FOR USE ON DRY AND SUCCULENT BEANS AND SUCCULENT PEAS VIA  
OVERHEAD SPRINKLER IRRIGATION IN THE STATES OF IDAHO,  
MONTANA, NEVADA, OREGON, UTAH, AND WASHINGTON**

This Supplemental Labeling expires on November 23, 2014 and must not be distributed or used after that date.

#### **DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

#### **IMPORTANT**

**BEFORE USING ROTAM METHOMYL 29LV INSECTICIDE, READ AND FOLLOW ALL  
APPLICABLE DIRECTIONS; RESTRICTIONS; AND PRECAUTIONS ON THE EPA -  
REGISTERED LABEL.**

This bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

#### **Application Information, Rates and Timing**

ROTAM METHOMYL 29LV INSECTICIDE controls beet armyworm, yellowstriped armyworm, western yellowstriped armyworm, saltmarsh caterpillar, aphids, variegated cutworm and loopers in succulent and dry beans and armyworm, beet armyworm, alfalfa looper, cabbage looper, pea aphid, saltmarsh caterpillar, variegated cutworm, alfalfa caterpillar and, green cloverworm in succulent peas at the rate of 3 pints of product per acre applied through overhead sprinkler irrigation systems. Apply ROTAM METHOMYL 29LV INSECTICIDE in 0.1 to 0.2 inches of water per acre.

Manufactured by:  
Rotam Agrochemical Company Ltd.  
7/F/ Cheung Tat Centre  
18 Cheung Lee Street  
Chai Wan, Hong Kong





Use of a wetting agent may improve performance. Make sequential applications at 5 to 7 day intervals or until worm populations are brought below threshold. Do not apply more than 15 pints (4.5 lbs a.i.) ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to dry and succulent beans. Do not apply more than 9 pints (2.7 lbs a.i.) of ROTAM METHOMYL 29LV INSECTICIDE per acre per crop to succulent peas.

Observe the following pre-harvest intervals following the last application of ROTAM METHOMYL 29LV INSECTICIDE: Succulent beans and bean vines - 3 days, succulent bean hay - 7 days; Dry beans, dry bean vines and hay - 14 days to cutting after the last application; Succulent peas - 1 day, succulent pea forage - 5 days, and succulent pea hay 14 days.

#### **Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Overhead Sprinkler Chemigation Systems.**

##### **Types of Irrigation Systems**

ROTAM METHOMYL 29LV INSECTICIDE may be applied through overhead sprinkler irrigation systems for control of the listed insects in dry and succulent beans and in succulent peas. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems.

##### **Preparation**

A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH 5-7).

##### **Injection Into Chemigation Systems**

Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water.

##### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 29LV INSECTICIDE must provide for uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

##### **Equipment calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 29LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

### Monitoring of Chemigation Applications

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 29LV INSECTICIDE is in the irrigation water.

### Required System Safety Devices

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e. g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

### Posting of Areas to be Treated

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the

posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### **Operation**

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

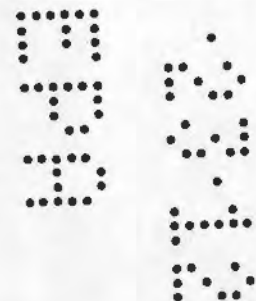
Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### **Cleaning the System**

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using ROTAM METHOMYL 29LV INSECTICIDE. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the limitation of Warranty and Liability on the Section 3 Federal product label.



## Restricted Use Pesticide

Due to High Acute Toxicity to Humans

For retail sale and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Direct supervision for this product requires the certified applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, or repair or cleaning of application equipment.

## Supplemental Labeling Sweet Corn

**ROTAM METHOMYL 29LV INSECTICIDE**

**EPA Reg. No. 83100-27**

**FOR USE ON SWEET CORN VIA OVERHEAD SPRINKLER IRRIGATION IN  
THE STATES OF COLORADO AND NEW MEXICO**

**This Supplemental Labeling expires on November 23, 2014 and must not be distributed or used after that date.**

### **DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

### **IMPORTANT**

**BEFORE USING ROTAM METHOMYL 29LV INSECTICIDE, READ AND FOLLOW ALL APPLICABLE DIRECTIONS; RESTRICTIONS; AND PRECAUTIONS ON THE EPA - REGISTERED LABEL.**

This bulletin contains new or supplemental instructions for use of these products in combination which does not appear on the package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

### **Application Information, Rates and Timing**

ROTAM METHOMYL 29LV INSECTICIDE controls armyworm, fall armyworm, beet armyworm, earworm and aphids in sweet corn at the rate of 1 1/2 pints of product per acre applied through overhead sprinkler irrigation systems. Apply ROTAM METHOMYL 29LV INSECTICIDE in 0.1 to 0.2 inches of water per acre.

Use of a wetting agent may improve performance. Make sequential applications at 1 day intervals or until insect populations are brought below threshold. Do not apply more than 21 pints (6.3 lbs a.i.)

ROTAM METHOMYL 29LV INSECTICIDE per crop to sweet corn. Make the last application of ROTAM METHOMYL 29LV INSECTICIDE at least 0 days for ears, 3 days for forage, and 21 days for stover before harvest.

Manufactured by:  
Rotam Agrochemical Company Ltd.  
7/F/ Cheung Tat Centre  
18 Cheung Lee Street  
Chai Wan, Hong Kong





## **Instructions for the Use of ROTAM METHOMYL 29LV INSECTICIDE in Overhead Sprinkler Chemigation Systems.**

### **Types of Irrigation Systems**

ROTAM METHOMYL 29LV INSECTICIDE may be applied through overhead sprinkler irrigation systems for control of armyworm, fall armyworm, beet armyworm, earworm and aphids in sweet corn. The irrigation system used must provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 29LV INSECTICIDE through any other type of irrigation systems.

### **Preparation**

A pesticide tank is used for the application of ROTAM METHOMYL 29LV INSECTICIDE in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 29LV INSECTICIDE into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 29LV INSECTICIDE. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH 5-7).

### **Injection Into Chemigation Systems**

Inject the proper amount of the ROTAM METHOMYL 29LV INSECTICIDE solution into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water.

### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 29LV INSECTICIDE must provide for uniform distribution of ROTAM METHOMYL 29LV INSECTICIDE treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

### **Equipment calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 29LV INSECTICIDE. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 29LV INSECTICIDE is in the irrigation water.

### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has

at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e. g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### **Posting of Areas to be Treated**

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### **Operation**

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform

manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

### **Cleaning the System**

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using ROTAM METHOMYL 29LV INSECTICIDE. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the limitation of Warranty and Liability on the Section 3 Federal product label.







United States  
Environmental Protection Agency  
Washington, DC 20460

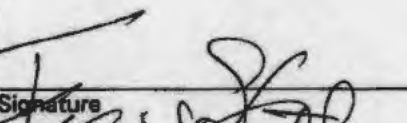
### Formulator's Exemption Statement (40 CFR 152.85)

<b>Applicant's Name and Address</b> ROTAM AGROCHEMICAL COMPANY LIMITED C/O IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238	<b>EPA File Symbol/Registration Number</b> 83100 - ET
	<b>Product Name</b> Rotam Methomyl 29LV Insecticide
	<b>Date of Confidential Statement of Formula (EPA Form 8570-4)</b> March 07, 2011

**As an authorized representative of the applicant for registration of the product identified above, I certify that:**

- (1) This product contains the following active ingredient(s):  
METHOMYL
- (2) Of these, each active ingredient listed in paragraph (4) is present solely as the result of the use of that active ingredient in the manufacturing, formulation or repackaging another product which contains that active ingredient which is registered under FIFRA Section 3, is purchased by us from another producer, and is labeled for at least each use for which my product is proposed to be labeled.
- (3) Indicate by checking (A) or (B) below which paragraph applies:
- ☒ (A) An accurate Confidential Statement of Formula (EPA FORM 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).
- OR
- ☐ (B) The Confidential Statement of Formula (CSF) (EPA Form 8570-4) referenced above and on file with the EPA is complete, current, and accurate and contains the information required on the current CSF.
- (4) The following active ingredients in this product qualify for the formulator's exemption.

### Source

Active Ingredient	Product Name	Registration Number
METHOMYL	[REDACTED]	[REDACTED]
<p><i>*Product ingredient source information may be entitled to confidential treatment*</i></p>		
Signature 	Name and Title Frank E. Sobotka, Ph.D. (Agent)	Date 03/28/11

*\*Product ingredient source information may be entitled to confidential treatment\**

EPA Form 8570-27 (Rev. 8-85)

White - EPA copy  
Yellow - Applicant copy





RE: need 83100-ET color info

Frank Sobotka o Thomas Harris

03/16/2011 01:20 PM

History: This message has been replied to.

See attached revised CSF for 83100-ET and 83100-EI (page 1&2). Both CSF's have been corrected to correct the name of the dye to [REDACTED] and redated with current date.

Dr. Frank E. Sobotka, Senior Partner  
IPM Resources LLC  
4032 Crockers Lake Blvd.  
Suite 818  
Sarasota, FL 34238  
PH: 215 497-9501  
FX: 215 497-9502

From: [REDACTED]  
To: harris.thomas@epamail.epa.gov  
Subject: RE: need 83100-ET color info  
Date: Wed, 16 Mar 2011 12:45:41 -0400

*\*Personal privacy information\**

I am revising the CSF's for both products and will send to you this after noon.

Dr. Frank E. Sobotka, Senior Partner  
IPM Resources LLC  
4032 Crockers Lake Blvd.  
Suite 818  
Sarasota, FL 34238  
PH: 215 497-9501  
FX: 215 497-9502

> Subject: Fw: need 83100-ET color info  
> To: [REDACTED]  
> From: harris.thomas@epamail.epa.gov  
> Date: Wed, 16 Mar 2011 11:57:39 -0400

*\*Personal privacy information\**

>  
>  
> Dr. Sobotka,  
>  
> Close but we either need:  
>  
> a) revise your CSF to state [REDACTED] as noted below  
> or

> b) have [REDACTED] send us a verification that [REDACTED]  
> [REDACTED]  
> [REDACTED]  
> Either will resolve the problem. Thanks.  
>  
> Tom Harris  
> EPA/OCSP/OPP/RD/IRB  
> voice: (703) 308-9423  
> fax: (703) 308-0029  
> harris.thomas@epa.gov  
> visit <http://www.epa.gov/pesticides>  
> ----- Forwarded by Thomas Harris/DC/USEPA/US on 03/16/2011 11:46 AM  
> -----

> From: Sandra Rock/DC/USEPA/US  
> To: Thomas Harris/DC/USEPA/US@EPA  
> Date: 03/16/2011 09:22 AM  
> Subject: Re: Fw: need 83100-ET color info

> Hello Tom,

> I have looked at the [REDACTED] dye information on line trying to  
> determine if [REDACTED] is a synonym for the [REDACTED] but do not  
> find any indication of such. The [REDACTED] is in OPPIN and approved  
> for food use. I would suggest that the registrant either revise the csf  
> to include the [REDACTED] product or wait until they get  
> verification on the [REDACTED] if they do not wish to revise. That way  
> they will be assured that the inerts will not be disapproved on future  
> submissions.

> Sandra Rock  
> Lockheed Martin - ITS-ESE  
> US EPA Headquarters (S-7941)  
> Office: (703) 308-6164  
> e-mail: rock.sandra@epa.gov  
> TOPO: Kerry Leifer

> From: Thomas Harris/DC/USEPA/US  
> To: Sandra Rock/DC/USEPA/US@EPA  
> Date: 03/15/2011 04:22 PM  
> Subject: Fw: need 83100-ET color info

> Sandy,

> Would this provide the info you need for the blue color for 83100-EI and  
> -ET?

> Tom Harris  
> EPA/OCSP/OPP/RD/IRB  
> voice: (703) 308-9423  
> fax: (703) 308-0029  
> harris.thomas@epa.gov  
> visit <http://www.epa.gov/pesticides>  
> ----- Forwarded by Thomas Harris/DC/USEPA/US on 03/15/2011 04:21 PM  
> -----



>  
> From: Frank Sobotka [REDACTED]  
> To: Thomas Harris/DC/USEPA/US@EPA  
> Date: 03/15/2011 04:08 PM  
> Subject: RE: need 83100-ET color info  
>  
>  
>

*\*Personal privacy information\**

> Will this help, [REDACTED] in the US it is  
> [REDACTED] all the same product. i am working to  
> contact [REDACTED] in the mean time.  
>  
>  
>

> Dr. Frank E. Sobotka, Senior Partner  
> IPM Resources LLC  
> 4032 Crockers Lake Blvd.  
> Suite 818  
> Sarasota, FL 34238  
> PH: 215 497-9501  
> FX: 215 497-9502  
>  
>  
>  
>  
>

> From: [REDACTED]  
> To: harris.thomas@epamail.epa.gov  
> Subject: RE: need 83100-ET color info  
> Date: Tue, 15 Mar 2011 15:32:06 -0400  
>

*\*Personal privacy information\**

> Tom, can you check the name [REDACTED] It is the same product but  
> different trade name  
>  
>  
>

> Dr. Frank E. Sobotka, Senior Partner  
> IPM Resources LLC  
> 4032 Crockers Lake Blvd.  
> Suite 818  
> Sarasota, FL 34238  
> PH: 215 497-9501  
> FX: 215 497-9502  
>  
>  
>  
>  
>

> > Subject: RE: need 83100-ET color info  
> > To: [REDACTED]  
> > From: harris.thomas@epamail.epa.gov  
> > Date: Tue, 15 Mar 2011 15:14:43 -0400  
> >

*\*Personal privacy information\**

> > I suspected that. Don't assume -EI is o, though; they may not have  
> > gotten to -EI yet. We'll still need the composition info so we can  
> > either find it in our database or add it to the database. Thanks.  
> >  
> > Tom Harris  
> > EPA/OCSPP/OPP/RD/IRB  
> > voice: (703) 308-9423

> > fax: (703) 308-0029  
> > harris.thomas@epa.gov  
> > visit <http://www.epa.gov/pesticides>

> >  
> >  
> >

> > From: Frank Sobotka [REDACTED]  
> > To: Thomas Harris/DC/USEPA/US@EPA  
> > Date: 03/15/2011 03:10 PM  
> > Subject: RE: need 83100-ET color info

*\*Personal privacy information\**

> >  
> >  
> >

> > The color in ET and EI are both the same dye. I will check the sub  
> docs  
> > and revert.

> >  
> >

> > Dr. Frank E. Sobotka, Senior Partner  
> > IPM Resources LLC  
> > 4032 Crockers Lake Blvd.  
> > Suite 818  
> > Sarasota, FL 34238  
> > PH: 215 497-9501  
> > FX: 215 497-9502

> >  
> >  
> >  
> >  
> >  
> >

> > > Subject: need 83100-ET color info  
> > > To: [REDACTED]  
> > > From: harris.thomas@epamail.epa.gov  
> > > Date: Tue, 15 Mar 2011 14:53:43 -0400

*\*Personal privacy information\**

> > >  
> > > Dr. Sobotka,  
> > >

> > > The chemists are looking at the revised info you sent Friday. One  
> > minor  
> > > snag: the color in the alternate for 83100-ET is not in our  
> database.  
> > > We need more info so we can determine if it's cleared for food use.  
> > You  
> > > can either a) have the supplier give you the info and then you pass  
> it  
> > > on to me or b) have the supplier send it to me directly. We need  
> full  
> > > compositional information including the manufacturer, trade name,  
> > > constituent names, CAS numbers, and weight/weight percent  
> composition  
> > > (100% full composition). Let me know if you have any questions.

> > >  
> > >

> > > Tom Harris  
> > > EPA/OCSP/OPP/RD/IRB  
> > > voice: (703) 308-9423  
> > > fax: (703) 308-0029  
> > > harris.thomas@epa.gov  
> > > visit <http://www.epa.gov/pesticides>  
> > >



> > [attachment [REDACTED] Specs.pdf" deleted by Sandra  
> Rock/DC/USEPA/US]



> 83100-EI Alt Methomyl 90SP CSF p1&2 rev 03\_16\_11.pdf 83100-ET Alt Methomyl 29LV CSF rev 03\_16\_11.pdf



## INERT CLEARANCE STATUS FORM

Reviewer Name: Sandra Rock			Request date: 3/15/2011
Tel: 703-308-6164	RD/IIAB	CUBE: S-7941	MAIL CODE: 7505P

**A. COMMENTS:**

**B. PESTICIDE PRODUCT INFORMATION:**

Receipt Number: EPA Reg. No/File Symbol: 83100-ET Product Name: Rotam Methomyl 29% LV Insecticide	Date on CSF: 3/7/11 Formulation: alt.	Food-Use Pesticide: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
---	--	---

**C. INGREDIENT INFORMATION:**

Ingredient No.1	Tolerance Exemption(s) <sup>1</sup>					
	910	920	930	940	950	960
Chem. Name:						
Trade Name: <span style="background-color: black; color: black;">XXXXXXXXXX</span>						
CAS Reg. No.:						
Comments: This product is not found in the Agency database. Please provide full compositional information including the manufacturer, trade name, constituent names, CAS numbers, and weight/weight percent composition ( <b>100% full composition</b> ).						

**Ingredient No. 2**

	910	920	930	940	950	960
Chem. Name:						
Trade Name:						
CAS Reg. No.:						
Comments:						

Reviewer Name: Sandra Rock

Review Date: 3/15/2011

<sup>1</sup>Language from the Code of Federal Regulations (40 CFR 180, subpart D):

40 CFR 180.910: Inert ingredients used pre- and post-harvest; 40 CFR 180.920: Inert ingredients used pre-harvest; 40 CFR 180.930: Inert ingredients applied to animals; 40 CFR 180.940: Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations; 40 CFR 180.950: Tolerance exemptions for minimal risk active and inert ingredients; and 40 CFR 180.960: Polymers.







